Safety Lessons

Experience may be the best teacher, but when it comes to matters of job-site safety, sometimes it's better to learn from someone else's. Here are 11 cautionary tales from *JLC* readers

Fined for Falling Off the Roof • by Mark Parlee

The odds of surviving a 25-foot fall, I've heard, are one in 100. My own 32-foot tumble happened in August 1993, when we were sheathing the 4/12 truss roof of a three-story apartment my company was building. I'd just cut the first sheet of plywood, laid it down on the roof framing, and was about to start nailing it off when the sheet started to slide. I have no memory of the accident itself because of the injuries I sustained, but I've been told that I somehow got both feet on the sheet when I tried to stamp one foot on it to stop it from sliding. I lost my balance and slid right off the roof with the plywood under me.

I could have landed in the middle of a pile of broken concrete and construction debris. But instead I landed on my side on the only bare patch of ground around. My hip hit first, fracturing my pelvis; then my back, breaking seven ribs on my right side and puncturing a lung; then my shoulder, fracturing my clavicle; and then my head, breaking several teeth and putting me in a coma with a traumatic brain injury. The good news was that I wasn't impaled on a metal stake marking the water meter about 12 inches from where I landed, and that my 'magic carpet' of plywood didn't land on top of me.

My 13-year-old son was on site at the time, and

though he was convinced I'd just been killed, he managed to call 911 on the cellphone. This was especially traumatic for him because he knew that my own dad died when I was thirteen, and he had a fear that his dad would, too. As I was evacuated by helicopter, my brother drove my son to the hospital. Using my cellphone, my son called everyone in the phone's directory and asked them to pray for me. It must have helped, because I survived the next three days in a coma on life support (photo, previous page), another week in the ICU, and then another five weeks in the hospital before heading home for six weeks of outpatient rehabilitative therapy.

Recovering from the accident was tough. I lost 50 pounds and 30 percent of my muscle mass (a body loses as much as 3 percent of muscle mass per day when on an IV feed). More important, I had suffered extensive frontal lobe damage and was told to expect irreversible neurological damage. But I credit my faith and the prayers of my friends and family — as well as the mental toughness I'd learned from a job-site injury seven years earlier, when I'd sliced my knee open with a saw — with putting me back on the job only eight months later.

On my very first day back at work, my company happened to be doing a siding job; there I was, two stories up on wobbly pump jacks and wooden scaffold planks. It didn't bother me a bit, and that's what concerned me. I was reminded of something that my Airborne drill sergeant said when asked if he'd ever been afraid to jump out of the plane: "Son, being scared to jump is what keeps me alive." Shortly afterward, I became one of the first Des Moines contractors to invest in a high-quality aluminum staging system.

When OSHA investigated my accident, they shut down the job for two weeks and fined me $69 for not having fall protection. So you might assume that harnesses and fall-arrest systems would be a prominent feature on my job sites. But the reality is that, while I try to work safely and have invested in high-quality staging, following every single OSHA safety guideline would put my company at a competitive disadvantage, because there isn't universal enforcement. I'm a strong advocate of working safely, and if it were up to me, everyone would be required to comply, but I have to temper the ideal with the realities of the marketplace. We work hard, we work safely, and we still pray a lot.

***Mark Parlee** is a general contractor in Des Moines, Iowa.*

Beware Flying Nails • by John Isaksen

George was about 20 years old when he hired on to help us with a colonial we were building. He impressed us from the beginning with his carpentry skills and great attitude toward the trade, so we offered him a full-time job.

But before he could start, he had a small job of his own to finish. While working on his project, he was pulling an 8d common nail out of some framing lumber, using his cat's paw — the kind of thing carpenters do every day without thinking about it. But instead of easing out slowly, the nail catapulted from the wood at high speed, flipped around, and stuck right in his eye. Four operations and a contact lens later, George could see "okay," but with nowhere near the 20/20 vision he had before the accident.

In our state, business owners aren't required to cover themselves with workmen's comp, and, like most small contractors, George hadn't done so. His wife had health insurance through her work, which covered some of the cost, but because she was pregnant, she had planned to quit and stay at home. However, with the accident, she had to continue working to keep the insurance in force — another unfortunate side effect of the injury.

Since that time, we require everyone on our projects to wear safety glasses at all times. We supply our workers with the model of their choice, and whenever anyone complains he gets to hear me tell the George story again. The moral of the story is that everybody knows to be careful when the danger is obvious, but wearing safety glasses *all* the time will protect you from the unexpected stuff.

***John Isaksen** is a remodeler in Bellevue, Wash.*

Switchblade • by Michael Kennedy

My router has a European-style on-off switch. You're probably familiar with the particular indicator markings: a dash for on and a circle for off. Or is it the other way around? It's an attempt at creating a universal symbol set, I suppose, but not as intuitive as the simple words "on" and "off."

Anyway, I knelt down to plug in the tool, and, sure enough, it was already switched to the "on" position. The start-up torque threw the tool off my workbench and straight toward me. Reflexively, I held my hand out to block the tool from striking me, and the bit took off the index finger of my right hand, clean as a whistle. And because a router doesn't cut so much as pulverize, there was nothing left to retrieve and stitch back on.

What do I do differently today? I realize that a spring-loaded trigger switch is safer than a toggle switch, so I have replaced the router with another model with a trigger feature. And I always make sure the tool is securely held before I plug it in.

***Michael Kennedy** is a custom stair builder in Hyannis, Mass.*

Run-In With a Biscuit-Joiner • by Richard Hark

About a year ago, when a friend and fellow stair-builder left a message on my voice mail telling me he'd just cut off his index finger in a router accident, I thought to myself, "That could happen to any one of us." Ironically, it was only one month later that I cut one of my own fingers off at the first knuckle. My tool of choice, however, was the seemingly innocuous hand-held biscuit joiner.

I was making a series of large newel-post caps, which were about 13 inches square with a "hip-roof" configuration. Each side of the hip was made from an individual piece of mahogany, and I was assembling the segments — 72 in all — with biscuits and yellow glue. I knew, of course, that a repetitive job of this size really required a jig to hold the workpieces firmly, but I was impatient to get the job done. I'd spread a sheet of slippery plastic over the bench to keep it clean of glue and was simply holding the segments with my left hand while cutting the slots. Even worse, I was using the tool with the fence flipped up out of the way; I was controlling the slot location with a block of wood under the workpiece.

I'd fallen into a rhythm and gotten quite a few pieces slotted when suddenly the bit grabbed the workpiece and threw it to the right. That left my hand in the way, and the blade grabbed my ring finger and chopped it, pulling it right into the aluminum blade housing and blowing it apart. Never have I been more angry with myself than I was at that moment, looking at that last finger joint hanging by a scrap of skin. I knew I'd been stupid not to make a simple jig, which would have taken all of five minutes. It hurt in more ways than one.

The doctor said that he could reattach the joint, but it would be rigid and useless and get in my way. He advised removal and I reluctantly agreed. With only nine fingers left whole (photo, above), I've gone back to work with a renewed respect for the power of simple hand tools. And I don't mind spending a few extra minutes to make the jigs that keep my hands out of harm's way.

***Richard Hark** is a custom stair builder in Harwich, Mass.*

Counting to 9½ • by Ed Williams

I was building a mahogany library for a client and was trying to keep on schedule. One of our carpenters couldn't come in that day, so I was attempting to make up for lost help. Doing repetitive work with a dangerous tool early on a Monday morning is not the time to be absent-minded, but I was. I reached around the back of the table-saw blade (as I'd foolishly done a thousand times before) to remove the drop piece from the left of the blade after it fell off the cut, but the waste piece caught the back of the blade, kicked back, and dragged my left hand over the spinning saw blade. Faster than my mind could work, my thumb — no match for a 10-inch carbide blade spinning at 3,450 rpm — was gone from the first knuckle up.

There are many advantages to working with other people, one being that there is always someone available to take you to the hospital. So, after my initial outcry, my hand was shoved into a bag of ice (another good reason to have a refrigerator in your shop) and I was driven to the closest hospital.

When you're in shock, you really don't feel any pain; 45 minutes later, though, you're thanking God for nurses and morphine. The hospital staff cleaned and covered my wound with bandages (I still didn't look), put an IV in my arm, took me up to X-ray, and then brought me back down again to wait seven hours for surgery. Afterward, they sent me home with my wife, my hand in a cast. As the morphine wore off, the pain became almost unbearable. No amount of pain pills can numb severed nerve endings in one's thumb.

A few weeks later, the cast came off and the stitches came out, and I got to see what I had left to work with. It was pretty depressing. While the cast was on I could swear I could feel the top of my thumb moving, like playing "Where is Thumbkin?" with the kids. But Thumbkin was gone. The medical phenomenon is known as "phantom pain": The feeling is real, but the body part just ain't there.

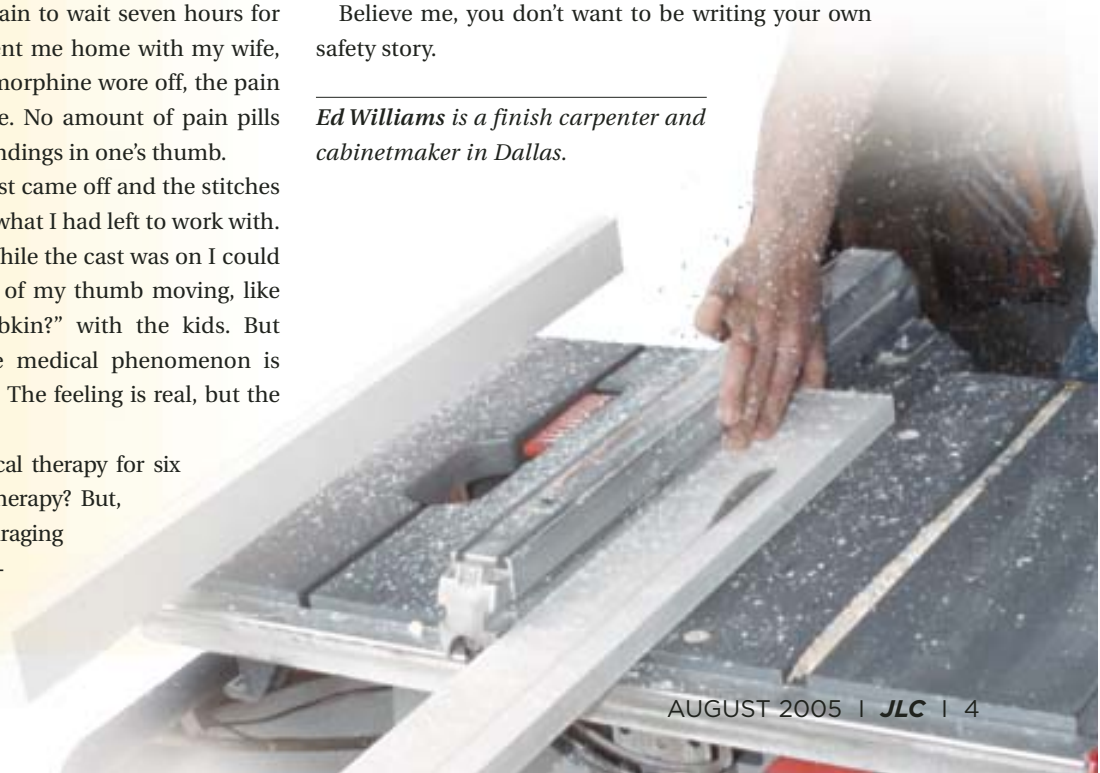
Ordered to attend physical therapy for six weeks, I scoffed. Thumb therapy? But, boy, am I glad I went. Encouraging and supportive, the therapists had seen it all and knew to tell me that it looked good when it didn't and to use it when I didn't want to. For weeks afterward, my wife had to tie my shoes, zip my pants, help me put on my shirt (I still have a hard time with buttons), cut my food, and tie my arm up between sofa pillows at night to keep my hand elevated while I slept. When I did get back to work, I was helpless there as well. I couldn't carry plywood or hold just about anything with my left hand. Thankfully, I own the company.

It's been a year now since my accident, and what's left of my thumb is still very sore to the touch. I bump it just a little and I climb the walls. A cabinetmaker I know lost the top of his ring finger 20 years ago and his finger is still sore, a discouraging thought. I did start playing the guitar again after about six months, which is great therapy, but not a day goes by that I'm not aware of my left hand's "shortcomings," especially when even a simple thing like holding a screw or a nail between my left thumb and forefinger is just a dream.

I can't stress enough how important it is to be careful in our business at all times, no matter how much experience you have. Next time you think you can get your hand a little closer to the blade just for that one cut, I hope you'll remember this story like a slap on the back of the head.

Believe me, you don't want to be writing your own safety story.

***Ed Williams** is a finish carpenter and cabinetmaker in Dallas.*



Solvent in the Eye: Could Have Been Worse • by Kenny Hart

About 25 years ago, I spent a morning with an insurance agent looking at business insurance plans. When we got to the topic of workmen's compensation, the agent pointed out that plumbers had a high incidence of eye injuries.

Later that afternoon, I stopped by a job site to check on the progress of my men. I walked up to my head plumber, who was working off a ladder at the time, looked up at his work — and bam! A drop of PVC glue splashed into my right eye. The insurance guy was right.

As soon as that glue hit, it felt as if someone had stuck something sharp in my eye. Thanks to the pain and the tears now streaming from both eyes, I ran into a wall on my dash to flush out my eye at the nearest sink. Later, the ophthalmologist did a more thorough job of flushing out the eye and gave me drops; thankfully, there was no permanent damage.

At the time, our company was small, with no formal safety policy. But ever since that incident, I keep a pair of safety goggles on hand, and so do my employees. Better yet, we use them whenever we think there's any possibility of getting an eyeful.

***Kenny Hart** and his father operate Hart's Plumbing and Heating in Virginia Beach, Va.*

Nailed by My Own Gun • by John Wilder

As a fencing contractor, I drive hundreds, even thousands, of nails in a day's work, so I depend on my nail guns. On one particular job, I was face-nailing stringers to 4x4 posts when I got a little careless. While holding the stringer with my left hand a bit too close to where I was nailing, my nail gun double-fired and kicked back, sending the second 16d ring-shank nail through the fleshy part of my left hand between the thumb and index finger. I was fortunate I didn't nail my hand to the post, because I was working alone at the time and freeing myself would have been tricky.

Since it was a ring-shank nail, I couldn't just pull it out of my hand, so I called my wife and asked her to meet me at the urgent-care clinic. There wasn't much blood, apparently because the hot-melt glue on the Bostitch nails I was using cauterized the wound. And, except for the shotlike sensation when the nail went in, there wasn't a lot of pain. Still, I was careful not to snag the nail on anything as I drove the five miles to the urgent-care facility.

I arrived before my wife and showed the receptionist my hand with the nail protruding from both sides. Fascinated, she called the other nurses and doctors out to see it before sending me to an exam room to wait for the attending physician. In the meantime, my wife arrived, and while the receptionist couldn't identify me by name, she quickly remembered me when my wife asked for "the guy with the nail in his hand." Later, the doctor deadened my hand with a shot of Novocain, unscrewed the nail, and sent me home with a dressing, antibiotics, and some painkillers.

Usually, the result of a nail-gun misfire in my line of work is a hole in nearby vinyl siding. It's easy to get careless and complacent when you're shooting lots of nails day after day. Now, whenever my left hand strays too close to the line of fire, I quickly remind myself that a pneumatic nailer is a serious weapon as well as an indispensable tool.

***John Wilder** is a fencing contractor near Daytona Beach, Fla.*

Buried Alive • by John Vastyan

Aaron Wentz is one of the lucky ones. Though buried twice by tons of soil during a trenching accident, he managed to survive an ordeal that kills more than 100 construction workers each year. And he emerged with few physical or mental scars; frequently those who survive a trench collapse have to deal with a lifetime of disabilities caused by the accident. When you consider that the weight of a cubic yard of soil is comparable to that of a midsize automobile, and that a typical trench-wall collapse involves 3 to 5 cubic yards, it's not hard to see why trench work can be so dangerous.

A 29-year-old plumber in Kearney, Neb., at the time of the accident, Wentz was working 13 feet below grade while tapping into a main sewer line. Dug by a skilled backhoe operator, the work area at the bottom of the trench measured 6 feet by 6 feet, and the trench sidewalls were sloped back per OSHA guidelines so that the top of the trench was nearly 21 feet wide. But, shortly after being inspected and approved by a city building inspector who was on the job site that day, the trench walls collapsed, burying Wentz and covering his head with more than 20 inches of soil. Hearing the rumbling of the soil as it began to move, he had just enough time to lean against the opposite side of the trench and throw an arm up over his head, forming an air pocket that probably saved his life.

Wentz's father, Orlin, was working on the job that day, and with help from co-workers and onlookers he was able to uncover Wentz's neck and shoulders after about eight minutes, pulling the soil away with bare hands and shovels. But as rescuers uncovered Wentz's chest and were attempting to remove him from the trench, a second avalanche of soil — a common hazard for rescue workers that often causes multiple fatalities in a trench collapse — buried Wentz again.

No other workers were buried, but this time more than 2 feet of soil covered Wentz's head, and with one hand pinned behind his back and the other fractured from soil pressure, he was able to create only a small air pocket near his mouth with his hand. Though it took nearly 15 minutes to uncover him after the second collapse, he was still conscious as workers pulled him from the trench, and he managed to walk to the ambulance under his own power (photo, above).

OSHA declined to conduct a safety hearing into the accident, but a subsequent review by safety consultants identified few obvious flaws in the trench's construction. Instead, unpredictable soil conditions caused by an unstable mix of sand and clay, the vestiges of an ancient river, would have probably caused a collapse even under ideal conditions. Wentz's company went back to finish the job a week later, and had to widen the trench to nearly 40 feet to reach soil that hadn't been disturbed by the accident. They no longer take on any work in that area of the city.

Does Wentz still get down in the trenches? Yes, though he admits that some days are easier than others. It's harder on his father, who can no longer comfortably go near a trench. But, as Wentz notes, sometimes accidents just happen, regardless of how safely you work or what precautions you take.

***John Vastyan** is a freelance writer covering the construction industry from Manheim, Pa.*

Unexpected Frost Makes Slippery Slope • by Fernando Pagés Ruiz

One brisk winter morning in Los Angeles, I arrived on the job site before anyone else. I walked upstairs and stepped through a second-floor window onto the roof to check the sheathing. Confident working at heights, I didn't notice that the night's dew had frozen into a thin coating of ice. One step, two steps … and then I slipped and skated down the 6/12 rake as if barreling down a water slide. Time slowed enough for me to remember that at the end of the slope came a two-story drop and, at the bottom of that drop, a pile of construction trash filled with rebar, jagged plywood, boards with nails, and welded wire mesh.

In the movies, the hero is always able to grab and hang on to something at the last second. But this was real life, and I realized that I would land in the debris and quite possibly never get back up again.

I slid off the edge, but as the ground approached, I experienced a nearly religious appreciation for my trashman. He must have come by the job even earlier than I did to haul away the heap. I landed on my ass, bruised and humiliated but not impaled by rebar or punctured by 16-penny nails, a newly converted believer in the merits of a clean and trash-free job site.

***Fernando Pagés Ruiz** is a general contractor who keeps his job sites spotless in Lincoln, Neb.*

Taking Care of the Injured • by Bill Robinson

Before becoming a building contractor, I worked offshore for nearly 15 years, a truly dangerous working environment where safety is taken seriously. One day, one of my co-workers on the drilling platform where we were based fell about 8 feet onto steel grating. We rushed to his aid, moving him to a more comfortable position out of the way so work could continue while we waited for the medevac helicopter to arrive. Fortunately, he was okay, and returned to work the next day, but I was written up for moving a fall victim before medical assistance arrived, which could have seriously complicated his condition.

Later, I was working for a land-based contractor doing remodeling. About half the crew were Spanish-speaking laborers, so communication was tricky on this site. And, compared with my experience offshore, there seemed to be considerable complacency about working safely. We had just removed a second-story balcony rail for demo when one of the Latino workers went up on the balcony; because we couldn't speak any Spanish, we couldn't warn him about the missing railing. I didn't see him fall, but I did hear a sickening thud followed by a muffled groan as he landed on the concrete floor below the balcony. When I turned around, he was lying on the ground, eyes rolled back and his tongue curled back in his throat.

Having learned my lesson from the accident offshore, I didn't try to move the man, but instead concentrated on getting him stabilized by clearing his breathing passage and keeping him from moving, and then calling the EMTs. Fortunately, he too recovered.

Because of the lax safety guidelines on this job site and the difficulty we had in communicating with our co-workers, a person was nearly killed or permanently disabled. But, by not moving the victim, I avoided making any injuries that he had worse.

When I was younger, I worried too much about keeping the job moving. Now, I realize that it's more important to work safely, and if there is an injury, to take care of the injured worker first.

***Bill Robinson** is a general contractor and consultant in Arroyo Grande, Calif.*

Just a Splinter? Maybe Not • by Mike Guertin

I once tripped on a tangle of hoses and power cords while carrying an armload of nail-embedded studs that I'd just extracted from a wall. Hoping that no one noticed my clumsy act, I quickly scrambled back to my feet. Luckily, all the wounds looked superficial: a couple of nail pokes, a few scrapes, and a splinter in my thumb. I hopped back to work.

After I showered that evening, I taped up a couple of spots with antibiotic salve, just as a precaution. The next day, my thumb started to hurt and swell a little at the knuckle joint, but I didn't think much about it other than that I must have bruised it when I fell. Over the next two days, though, my thumb continued to swell, and even double doses of painkiller failed to take the edge off the pain. On the fourth day, I decided that I must have broken it, so I stopped by the hospital treatment center for X-rays.

There they checked my vital signs, took some blood and X-rays of my thumb, and asked what happened. I just wanted to get a splint, know how long I would be out of work, and score some industrial-strength painkillers.

The doctor said, "Good news. Your X-rays came back negative from the radiologist. But you're running a fever and your white count is up there. When was your last tetanus shot?"

"Uh, beats me," I replied.

He closed the door and paused. "If you came in here tomorrow, you'd be spending the night, because I'd be cutting off your thumb and perhaps part of your hand. You've got a very serious infection."

We decided that the inch-long splinter I dug out of my thumb after the fall must have started the infection. While the small puncture sealed over quickly, the bacteria inside were having a party at my expense. I spent the next three hours hooked up to an IV antibiotic infusion, then spent the next four days at home with my hand above my heart, popping antibiotic horse pills every four or five hours. All because of a splinter.

That was 15 years ago, and I've taken every small cut seriously ever since. I don't wait to get home to scrub and cover wounds with antibiotic and tape, and I keep my tetanus shot current (every five years).

Just the same, three weeks ago I dropped a piece of decking on my ankle, which left a pretty good scrape that I had a nurse look at and dress. My ankle swelled up — as I expected — but it wasn't bad enough to stop me from going on vacation two days later. Still, even though I changed the dressing daily, my ankle continued to swell and stiffen.

Upon returning from my four-day vacation, I went right to the treatment center. I figured that the piece of decking must have whacked my ankle just right and fractured it. But, no: It was another infection that left me couch-bound for two weeks with my foot elevated above my heart. After five days of antibiotics, the pain was still so bad I couldn't walk any further than the bathroom.

I'm fine now, but have since learned from my doctor that injuries below the knee can be more dangerous than anywhere else, because circulation is poor and infection can set in quickly.

***Mike Guertin** is a builder and remodeler in East Greenwich, R.I., and a member of the* JLC *Live construction demonstration team.*

HAVE YOUR OWN SAFETY STORY?

We're already planning next year's safety feature and are looking for contributions from *JLC* readers. If you have a tale to tell, send it to Safety, *JLC,* 186 Allen Brook Lane, Williston, VT 05495; or e-mail it to jlc-editorial@hanleywood.com.