Hadley

Nuts, Bolts and Hand Tools

Presented by Ricky Enger

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Ricky Enger: Welcome to Hadley Presents. I'm your host Ricky Enger, inviting you to sit back, relax and enjoy a conversation with the experts. In this episode we bring you part two of our series on safe and effective home repair, and our experts are experienced home repair and woodworking enthusiast, Gil Johnson and Hadley Learning Expert, Jennifer Ottowitz. Welcome back.

Jennifer Ottowitz: Hi.

Gil Johnson: Hello there. I'm ready for part two.

Ricky Enger: So if you haven't listened to part one, which gives some really great general tips, you should definitely go back and do that and learn a little about who Gil and Jennifer are. But if you're just coming to us now, why don't we get a little introduction from both of you just so listeners know a bit about who you are and what you do.

Jennifer Ottowitz: Hi everybody. I'm Jennifer, and I'm a Senior Learning Expert with Hadley. I've been an instructor here since 2013, and I also have a background as a certified vision rehabilitation therapist working with adults who are losing or have lost their vision.

Gil Johnson: I'm Gil Johnson. I am retired now. I had worked for 44 years as a rehab counselor, and then supervisor and manager and director. And when I wasn't doing that, I've had a woodworking shop ever since I was about 12 years old, and that's really been one of my side efforts.

Ricky Enger: Well, I got a sneak peek of what we're going to talk about on the episode today and I'm super-excited. So, rather than listening to me ramble on, let's throw to Jennifer and Gill and let you guys get started.

Jennifer Ottowitz: Well Gil, we're going to talk today about using hand tools. But before we get started, would you mind sharing briefly a few tips and reminders about some things we talked about in our first podcast that are really important no matter what type of home repair, project or task you're working on? And those would be things like safety, organization, and making use of all of your senses.

Gil Johnson: I believe so strongly that blind or visually impaired people can do pretty much anything that they want to do. Sometimes we need encouragement, sometimes we need help, particularly for people who are relatively newly visually impaired. This may seem like something that's not possible. That is, working with tools and making repairs and doing electrical work and things like that. But I can assure you that it is totally possible, and with relatively few adaptations that need to be made.

One important thing is for everyone, think safety. And there's some tips on safety that I think are central. Keeping a workshop or a work area organized so that things aren't laying around. There aren't things on the floor to trip over. Things of that sort, very, very important. Planning ahead, having the tools that you will need to do the task is is always a good step to take. If you're totally blind, using every sense that you can, hearing, smell, touch. And if you have some remaining vision, of course, using those senses, hearing, touch, smell, and as well as the remaining vision that you have. But again, keeping in mind safety. You don't want to get your nose too close to something that might bite you. So using magnifying glasses and things of that sort is totally possible and can enhance what you're doing.

Jennifer Ottowitz: Let's jump into the meat of our podcast today and talk about some hand tools. I know you've got a lot of experience and examples and we'll probably just hit the tip of the iceberg with all of these. But we'll go ahead and get started and I want to ask, can you share any tips and examples for using screwdrivers?

Gil Johnson: What's important is to get the right size screwdriver and have one that fits your hand well. You want to be sure that if you're going to place it on a screw, I always use one hand. I happen to be right-handed, so I use my left hand to guide the screwdriver onto the bolt or screw head.

Jennifer Ottowitz: I will tell you there's nothing more gratifying than being able to tighten up a loose knob or handle. So a screwdriver, it's really satisfying to be able to use that around the house.

Well, let's talk next about using a hammer. And I know sometimes there can be a little bit of fear, sometimes even a little bit of pain involved, if you accidentally hit your finger. But some people may also be a little concerned about making sure they're driving the nail in straight. So, what are some suggestions that you have for safely hammering a nail?

Gil Johnson: Practice, I got to start with. Get a piece of scrap wood. If you haven't done much hammering before, get a piece of scrap wood. And you could tell pretty much if the nail is straight up and down, vertical with the wood, by feeling. If you place the edge of your hand on the board, and the nail's then between your thumb and your forefinger, you could get a pretty good idea if it's straight up and down. And then to start driving it, of course you want to have the right size hammer. If it's a small nail, what they call a tack hammer is usually what people use. If it's a larger nail, than a 16-ounce hammer is usually what you would use.

When starting an nail, I always position it, try to get it straight up and down if that's what I want, and then tap it a little bit at the top, trying to hit the nail with the hammer head flat to the nail head, so you're not hitting it at an angle. And I never start by hitting it hard. I'd tap it a little bit until it stays in place. If you are balanced, that is, if you're standing comfortably and you're above the work, then your posture is good and the hammer will go back to the same place every time, every swing. And as long as the hammer goes where you want it to, that is straight down, you can drive nails in very safely and relatively quickly. I'm not as fast at driving nails in as some people. Some people will take a long nail and, three strokes of a hammer and they've got it in. I'm not that good at it. As long as you get the nail in and it goes where you want it to go. It does take some practice. If you've been working in the shop, working on a project for a while and you find that you're getting a little fatigued, that's the time to stop. Because that's when accidents happen. And particularly with a hammer, accidents mean you get a bruised finger.

Jennifer Ottowitz: And I think accuracy is definitely more important than speed. So taking your time, very important. I just had a question. Whenever you're first holding the nail, do you recommend holding it near the head or near the base of the nail?

Gil Johnson: I try to go in the middle. When I'm driving a nail, I try to anchor the edge of my hand on the work surface so that it's not just flopping around there. And then, my fingers hold the nail, and everything is pretty stable.

Jennifer Ottowitz: Are there any special tricks for using wrenches or pliers that you use?

Gil Johnson: Not especially, except getting the right wrench for the task. Now there's a whole array and variety of different kinds of wrenches. There's what they call box-end wrenches that come in different sizes, all the way from very little, up to well over an inch. That is, they'll take that size of a bolt. And of course, the bigger the wrench, the longer the handle is. So there's those with a box-end, one end is a circle that can go down over what they call a hex head. Hex meaning six-sided, of course. And the notches in the end of the wrench engage with the bolt head, and it's very secure. The other end is the open-end, and it just slides onto the head of the bolt, it doesn't encircle it. So that's one set of wrenches to have. A lot of people use what they call a crescent wrench, or an adjustable wrench, and these come in different lengths, four, six, eight, ten, twelve-inch lengths. And of course, the bigger the wrench, the bigger the bolt it will handle. And the advantage of using an adjustable wrench is that you can adjust it to different size nut heads and bolt heads. So you can use one wrench for a particular task.

Pliers can be used. Pliers are just, they have two jaws and the workpiece goes between the jaws and you squeeze the handles and that presses the jaws down onto the bolt or the nut, whatever you're working on. But if you're wanting to tighten up something really good, pliers can slip. So it really is selecting the right tool for what you're needing to do. If it's something relatively easy, pliers can be fine. A crescent wrench can be fine. There's one other wrench that sometimes is useful. It's called a vise-grip. A vise-grip is like pliers, except that if you adjust it just right, you can squeeze the handle and lock it onto the head of the bolt or the nut or whatever you're working on, and it has a very secure grip. And, there's times when using a vise-grip is very useful.

Jennifer Ottowitz: I remember many, many years ago when I was growing up, we had a black and white television set, and this was before the days of remote control when TV's actually had knobs. And one of the knobs had fallen off, and so the only way we could turn the channel was to use pliers to turn the stem. And it worked.

Gil Johnson: That's right. That's right.

Jennifer Ottowitz: Well Gil, when it comes to plumbing issues, are there any tips or anything special about using plungers or snakes?

Gil Johnson: It's a good idea to wear gloves, because if you are sticking a plunger, or a snake, particularly. A snake is nothing more than coiled wire that is usually about 3/8ths of an inch in diameter and it's flexible. And so if you're trying to unstop a toilet or a sink, it'll go around corners when you push it in, Some of these have a device so that you can turn it round and round and round, and that's good for getting through a stopped-up area and for making the snake go around the corner. A plunger pretty much has one purpose, and that's pretty much with a toilet if it stopped up. You position it just so that it forces the contents of the toilet bowl down. If there's a stoppage, sometimes it'll break it loose. Just the force of the plunger on the liquid in the bowl will force that through. Obviously, gloves do hinder your sense of touch. And so sometimes, the kind of gloves that are good to use for something like that are like what a surgeon or a nurse would use. Because they're very thin. They're usually pretty strong. But you can feel pretty much what you're touching through the thin wall of the glove, and yet it still protects your hands.

Jennifer Ottowitz: So Gil, it sounds like with a lot of the tools that you've mentioned, using that sense of touch no matter what your level of vision is really important. And I love the tip about the thinner gloves too. Gil I wanted to talk about a couple of tasks that are common to a lot of home repair and woodworking and other projects. And the first one is measuring. And whether your trying to measure the available space that you have to see if something will fit before you actually move it there, or you need to measure the dimensions of something. Or you're trying to cut pieces of wood or something else a particular size. You know the famous saying is, "Measure twice, cut once." But, what are some adaptations if you have trouble seeing the tape measure or the yardstick or the ruler?

Gil Johnson: Measuring as accurately as you can is really an important thing to be able to do, and there's some very simple ways that you can get an approximate measure. And actually I've written a guide that describes that. One very simple way is that if you want to have something about an inch, you want to know about how much is an inch, an inch is about the distance from your first knuckle to the end of your finger. Give or take a little. And if a person has a smaller hand, then it's less than an inch, and a person has a bigger hand is more. But it's an approximation. Four inches is roughly the distance across the hand, from your little finger to your pointer. 18 inches is roughly the distance from your elbow to your fingertips. And that can give you some approximation.

If you need more accuracy than that, then there's some fairly simple ways to do that. Most hardware stores or home centers have wooden one-foot rulers, or a three-foot ruler or a yardstick they call it. And they're cheap and some of the markings are fairly visible, and somebody with low vision perhaps can read that. But the thing you can do is, since they are wood, you can take a file, or get someone to take a file, and make notches. What I've seen done is on one edge, notch it at a half an inch, an inch and a half, two and a half, three and a half. On the other edge, notch it at one inch, two-inch, three inch, four inches. Then you have, it's still not as precise as you might want it, but it gives you a pretty good way of measuring things and with relatively little expense involved.

Another technique that you can use, there is a tape measure it's called. It's inside of a case, a metal case, and you can pull it out and there's a locking device. So if you want to measure say, the lengths of a doorway, pull the tape out of the case to the width that you're measuring and lock it in place. And then if you have residual vision and can get it where there's light, you can get close enough then to the tape measure itself and read what it is. Or, you can get a family member to tell you what the measurement is.

There's two other tools that are adapted specifically for blind and visually impaired people. One is called the Click Rule. And the other is there's a Talking Tape Measure. A Click Rule, you can measure down within a 16th of an inch using that. Frankly, the Click Rule is the only adapted tool I have in my shop. Everything else is standard that you buy at a hardware store or a home center. But the Click Rule is a special device. I use a Click Rule every day I go out to the shop.

Leveling is another, it's a kind of measurement that is if you want to hang a picture or you want something that you want to make sure it's level. There's different ways of doing that. There are audible levels that some of us use if you want, say, to lay out a fence, you want a fence post to be straight up and down. If you're installing that or if you're hanging a door and you want it to be hanging right, there are audible levels that are very good. They're a little pricey, but they're good tools.

There's other ways of leveling things as well. Of course, if you're hanging a picture, you can simply measure from the floor up to where the picture hanger would be. If it only has one hanger, if that's all it needs, then you can position it where you want and hang the picture. And you could kind of tell pretty closely just by running your hand along the top frame of the picture. If it seems level, or if it seems to be slanting one way or the other, and you can adjust that just by moving the picture. If it happens to have two hangers, that's where if you measure up from the floor, say five feet or something where the hanger should be, if both hangers are at five feet, you're going to be pretty sure that it's going to be level. So, there's ways of doing that. One trick that a lot of people laugh at, but it works. If you have a picture and it's only hung on one bracket, one way to do that is to lay a marble along the top frame of the picture. And if the marble rolls, it probably tells you, oh, it's slanting a little bit to the left or to the right, and you can adjust it. And when the marble doesn't want to roll anymore, you probably have it pretty level. So that's kind of a funny thing to use, but it does work.

Jennifer Ottowitz: And I told Gil, I was one of the people that laughed at that because my question was, how long would it take me to find the marble if it dropped onto the floor? But it's easy to find. You may have to get on your hands and knees, but you can find it, and it's a really great way to tell if something's level. If you're like me, I might get pictures off kilter just by dusting them. So making sure you even check after you do something like dust is a really great thing and you can use your sense of touch for that in addition to your remaining vision.

Gil, these are some really wonderful tips. Like I said, I know we just kind of touched the tip of the iceberg with them. I don't know if you want to share any other resources, Gil, before we wrap it all up?

Gil Johnson: Well, just two things I would say. One is that I've written guides for eight or nine different home repair projects, all the way or from installing a light switch and repairing an electrical outlet, to unplugging soft drains, to installing a ceiling fan. There's eight or nine of those. And those are step-by-step guides.

The other thing I would say, if any of you have questions about doing something around the house that you think we might be able to help with, if you send that question to Jennifer at Hadley, then she'll forward it on to me and I'll do my best to respond to it.

Jennifer Ottowitz: So if you do have any questions for Gil, you can reach him through me at my email address which is jennifer@hadley.edu.

Ricky Enger: Thank you both so much. I really appreciate, especially the tips on measuring. That's one thing I'm particularly bad at. So, let's go ahead and wrap this up so I can go practice measuring things in my house, and I look forward to you guys joining us for the next podcast on home repair and woodworking. Thanks for listening.

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