

A Hiring Test for Carpenters

by David Frane

As a finish carpentry foreman in New England during the building boom of the mid-1980s, I saw a lot of carpenters come and go. Time and time again I would hear about the awesome carpenter hired to start the following week and would picture myself reduced to the role of helper. Almost invariably, these superstars turned out to be busts. Some lasted a few weeks, others a few months. The repairs and punchlist items they generated were there to remind us of them long after they had moved on.

Hiring was done by the company's business manager and project manager. The project manager hadn't worn a tool belt for a few years, while the business manager had never worked in the trade. They tended to hire people who were presentable and articulate in the white collar setting of the office. While these are valuable qualities for an employee to have, they are no substitute for technical skills. Some of us in the field thought we could do better. As working carpenters we figured we were better equipped to tell the contenders from the pretenders.

We've since switched to a format that gives the company's working foremen a chance to scrutinize applicants for carpentry jobs. One result has been that we've hired some excellent carpenters who might not have been recognized as such in the past. Another is that we've avoided hiring some applicants who looked good on paper and talked a good game, but who couldn't cut it in the field.

The heart of our hiring process is the test on the facing page. It includes questions on tools, materials, framing, and finish work. We give it orally, so each question becomes a springboard for discussing a particular slice of the trade. The discussion lets us gauge qualities beyond the applicant's technical knowledge. These include honesty and flexibility, both of which are crucial in the custom home market where we work. For instance, I've interviewed people who didn't know what they were talking about but who tried to bluff their way through the test; I've interviewed others who didn't know what they were talking about but really believed they did.

Because most of the test questions have more than one "right" answer, we're wary of anyone who begins too many answers with words like: "the only way to do it is..." Such a person might be technically competent, but may not be the sort of carpenter who interacts smoothly with architects, engineers, clients, and supervisors.

Using Tools

Most carpenters end up owning more tools than they know how to use. The test's tool questions tell us how much they do know. The question about the framing square, for example, is for applicants who claim to be experienced framers. The Speed Square and Construction Master may soon render this ques-

tion obsolete, but for now a framer should know that a framing square has legs of 16 and 24 inches, and that a hip rafter has a unit run of 17 inches. By the way, this question was one that completely stumped me on my contractor's licensing test, but I figure that someone who doesn't know more than I do isn't much of a framer.

Listening to carpenters explain why you should hire them can be a lot like listening to fishing stories. A simple, field-given oral test could improve your hiring score.

We also hand applicants an old level and ask them to check it for accuracy. The pros place the level against a wall, read it, then flip it end-for-end and read it again on the same spot. If the readings match, the level is true. Others have tried to check the level by holding it against another, but became stuck when we asked how they knew the second level was okay. One guy said he would set the level down on a beach and look to see if it agreed with the water.

How, or if, a carpenter sharpens his chisels can tell you a lot about the quality of his work. In theory, lashing a chisel to the frame of your truck and dragging it on the highway might sharpen a hacker chisel, but a finish carpenter will own some nice chisels and something to sharpen them on. That said, I get a chuckle from carpenters who try to impress me with the great lengths they go to in order to get the ultimate edge. I'm not interested in guys who sleep with their chisels and can only sharpen them on nights when there's a full moon or after meditating. I'd rather see some basic competence with a few stones and some honing oil.

The tool discussion is a good place to gauge an applicant's creativity. We look for people like the new guy I found myself working with five or six years ago. Someone had installed a window that was missing the drip channel on the underside of the sill. A router or saw wouldn't cut that close to the sheathing and I didn't feel like removing the window. While the rest of us were scratching our heads, the new guy went to his truck, returned with a plate joiner, and used it to cut the drip in one easy pass.

Materials

Knowing everything about tools is a waste of time if you don't understand the materials you work with. You have to wonder about someone who claims to have just built an awesome cherry library but can't tell a piece of cherry from a piece of maple (I've seen it happen).

Carpenter Quiz

- (1) When hanging a door, what margins do you leave around it? Summer? Winter?
- (2) How would you go about installing a two-piece baseboard in a room where the hardwood floor was already down? What kind of joints do you use at the inside corners?
- (3) You are casing a door with mitered casings. The finish floor is an irregular quarry tile and is already down. Step by step, how would you case the door?
- (4) What is the size of a framing square? What is the number 17 used for?
- (5) What is a typical rise and run for a set of stairs? What are the code ratios?
- (6) By code, what are the allowable rail heights on stairs and platforms in residential construction? In commercial construction?
- (7) How would you check to see if a level was reading accurately?
- (8) How do you sharpen your chisels?
- (9) What do the following mean on a blueprint? NTS GFCI OC W10x26 TOW AFF
- (10) Can you identify several wood samples?
- (11) You have to replace a flat pine panel in a stile and rail door. There are removable stops and the opening for the panel is 24 inches square. What size would you cut the replacement?
- (12) As a piece of flatsawn wood dries out, how does it change shape?
- (13) How do you cut crown molding on a chop saw?
- (14) You are cross-cutting a piece of AC plywood with a circular saw and need one good face. Which side faces up? Which side faces up when you're using a tablesaw?
- (15) In a kitchen, what is the standard height of upper cabinets over countertops?
- (16) What building or woodworking magazines do you know of? Which do you read?
- (17) Identify three carbide-tip saw blades (ATB, chisel tooth, rip, triple chip). What is each used for?

That's one reason we ask potential finish carpenters to identify samples of woods like pine, fir, cedar, white oak, red oak, cherry, mahogany, poplar, and birch. Some of them take a quick look at the face of a board and confidently misidentify it. Others who are less sure but more thoughtful might look at the face, look at the edge, smell it, dig a fingernail into it, or try to gauge its weight.

The question about which side goes up when you are cutting plywood is similar to the question about checking the level. An experienced finish carpenter will have an immediate response. Pretenders won't even understand the point of the question. Does it matter which side is up? I have had guys tell me that they have such a steady hand and such sharp blades on their saws that it doesn't matter which side is up, the plywood doesn't splinter.

Finish Work

The questions on finish work require applicants to describe various job processes. They include questions on hanging doors, running baseboard, and building stairs.

Doors. These are a finish carpenter's bread and butter. If a guy can describe, step by step, some reasonable way to hang and case a door, he probably knows what he's doing. If he has to stop and think about it, he probably isn't very good.

Does the guy know to set the head jamb level? Does he scribe the jamb and casing to the finish floor if it is already down? How many places does he nail and shim his jamb? Where does he place the shims? (At a minimum, they should go behind the hinges and strike.) How does he

cut his hinge mortises? Does he use a router and a jig, or does he use a utility knife and a screwdriver? I've seen the latter attempted, and it's not a pretty sight.

The margins someone leaves around a door tells us how well he understands wood movement. The general rule is that if the door is acclimated, hang it tight in the summer, loose in the winter. Understanding of this principle often reflects the climate people have worked in and the materials they've used. For example, one fellow who came to work for us had been a cabinetmaker in Denver. Having worked mostly with sheet goods and in dry mountain air, he hadn't learned to deal with wood movement. He was hanging an exterior door and was proud of how tight and even the margins were. I told him that they were too tight, but he assured me he knew what he was doing (he probably thought I was just jealous of his ability to do such precise work). After a few weeks in the humid New England summer, the door swelled so tight that it took a crowbar to open it. After planing it to fit, he was a bit more willing to listen.

Baseboard. Another bread-and-butter question is the one about baseboard. A good carpenter will ask for more information, such as whether there are plinth blocks or a shoe mold, or whether the base must be scribed to a finish floor. And he'll have a system. Does he draw a straight or level line around the room to set the base to? Does he backcut his scribes to make it easier to plane to the line? Does he cope his inside corner? Does he glue in his scarf joints? How much does he stagger his joints?

Stairs. Stairbuilding is the apex of finish carpentry. Stairs are

expensive to build and are finished late in the job. Mess them up and you incur big costs at a crucial time.

Building codes demand that stairs be one of the most accurately constructed components in a building — try to find any other part of the code that mentions sixteenths of an inch. If a countertop ends up 35 1/2 inches above the floor instead of 36 inches (and if your appliances still fit under it), you may be able to live with it. If a stair or balcony rail of a residential building ends up 35 1/2 inches above the floor instead of 36 inches, you have a big problem (please don't ask me how I know). If the run of a stair is too short or the rise too high, you have an even bigger problem. If you are interviewing potential stairbuilders, it's a good idea to test them on the code. It's easy to spot bad joinery before a project is too far along, but inaccurate layout is one of those things you may not catch until it's too late. I don't expect a carpenter to have the stair code memorized — it seems to change all the time anyway. But I do look for someone who knows which stair dimensions are critical, and who has enough sense to check them out before starting.

If a carpenter seems to have a basic grasp of the stair code, then we might talk about how he fastens newels, joins rail parts, and the like.

Other Questions

The questions about blueprint reading are as much to find out if this is the sort of guy who pretends to know things he doesn't as it is to test actual knowledge. It's easier to learn how to read prints than to unlearn the habit of faking it. If someone claims to know how to

work from prints, I ask him to use the reference marks on the floor plan to identify a building section. He should be able to figure what scale the plans are in as well as what some of the abbreviations mean.

I also want to know whether someone reads any woodworking or trade magazines. There are plenty of good carpenters who don't; if someone has 25 years in the trade and is as good as he should be, I don't hold it against him that he's not actively seeking to improve his skills. But I have no patience with the beginning carpenter who claims to want to advance, then loses interest the moment he is off the clock. The amazing things Larry Bird did on the basketball court were the direct result of endless hours of practice that took place when no one was around to cheer. Learning carpentry is really no different.

The Results

During the few years we have been using this test, a number of things have become clear. One is that it won't tell us everything about a person. Hiring remains quite subjective: There's no way to tell in an interview if someone is fast or slow, or is going to show up for work on time. Although a test won't guarantee that new hires will fit into your company, it can ensure that they have a certain level of knowledge and experience. The test hasn't made us infallible when it comes to hiring carpenters, but it's a useful screening tool. Like any tool, its value lies in knowing how to use it. ■

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