

Floor Sanding

Follow a pattern with powerful machines for best results

by Don Bollinger

Sanding a floor is nasty work. It's noisy and dusty, and it takes a fair amount of practice to do it right. It's one of the most frequently subbed-out jobs. But a lot of people are willing to take it on for the first time, as owners of tool-rental shops will readily attest. Here are some tips, and a few precautions.

Preparation—Take everything that isn't nailed down out of the room. Cover the built-ins with plastic sheeting, and tack sheets of plastic across any doorways. Rolled-up towels laid against the bottom of the far side of doors in rooms being sanded will also help to contain the dust.

Sweep the floor clean and set any protruding nails at least $\frac{1}{16}$ in. below the surface. Repair loose boards or squeaks with nails driven into joists. If there's room under the floor, I like to fix squeaks by driving screws through the subfloor to draw the hardwood tight against the underlayment. These screws have

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to be $\frac{1}{4}$ in. shy of the total thickness of the subfloor and the flooring.

You'll need a dust mask while you're sanding. You may want to wear some ear protection, too. Wear shoes that don't have crevices in the soles that can pick up grit. Sneakers or running shoes are good, but avoid the ones with black soles—they can leave scuff marks that are hard to remove.

The tools—It takes two basic kinds of sanders to finish (or refinish) a floor: a drum sander and a power edger. Both are available at tool-rental shops, and both require some muscle and practice to use correctly.

The drum sander, or floor sander, is used to sand most of the floor (photo facing page, top). It is a formidable machine. Even the smaller versions weigh about 125 lb., and they look like a cross between a lawn mower and a steamroller. They need their own 15-amp circuit to operate an 8-in. drum that rotates at about 5,000 rpm. When this drum is fitted with coarse-grit paper and lowered onto the floor, it wants to take off like a dragster. If you

hold it in one place, it is inclined to eat its way through the floor and into the basement. It's not a machine to be taken lightly.

But it's the only tool for the job, and with some practice, an operator can develop the required light touch. The first-time user should practice on a section of floor that won't be in direct view. Try a bedroom floor or part of a room that will be covered with a rug. And sand only with the grain.

As in any sanding job, you start with coarse-grit paper and work up to the fine grit. It takes quite a few sheets of at least three different grits to do an entire floor. Sheets are sold at the rental shops, and you can generally return the ones you don't use. Take plenty.

If you are refinishing a floor that's covered with paint, begin sanding with a very coarse paper—12 to 20 grit. For a new floor, start with 24 to 40 grit.

The drum sander is designed to make a slightly deeper cut on the left side of the drum (drawing facing page, top). This delicate angle allows you to feather the edge of the cut on the right side. To benefit from this feature, you should start sanding on the right side of the room, and work toward the left.

Begin about a third of the way up the floor (drawing facing page, center), and gradually lower the drum to the floor by letting up on the handle. It's important that you walk forward as you do this so the drum won't dig in in one spot. The weight of the machine will do the cutting. You want to make sure that the drum smoothly engages and disengages with the floor.

As you near the wall (about 1 ft. away), begin lifting up the drum, and then lower it again as you back up over the same path. You're towing the sander now, and this is when it does its best cutting.

Move to the left in 2-in. to 4-in. increments, making a forward and a backward pass over each section. When you've covered two-thirds of the floor, go to the left wall, turn around and sand the remaining third in the same manner. Take care to feather the slight ridge where you changed direction.

Sometimes a floor will be so uneven that it has to be sanded diagonally to the strips. Do this very carefully, and only with the coarsest paper. Start in one corner and move from right to left until two-thirds of the floor is covered. Go to the opposite corner, reverse direction and finish the remaining third. Then



sand the entire floor in the direction of the grain with the coarsest paper.

Since the drum sander can't reach in close to walls, corners and other tight areas, you'll have to sand these surfaces with an edger (photo bottom right). This powerful disc sander has grips for both hands built into the body. When it's tilted back on its wheels, the disc is lifted off the floor. When allowed to tilt forward, the machine begins its work. Like the drum sander, it is a difficult tool to use correctly without some practice. Try it out where you can't do too much damage.

The edger has a light mounted on the front of its chassis that helps you see what you're doing. If you're renting one, check to see that the bulb works—frequently they don't.

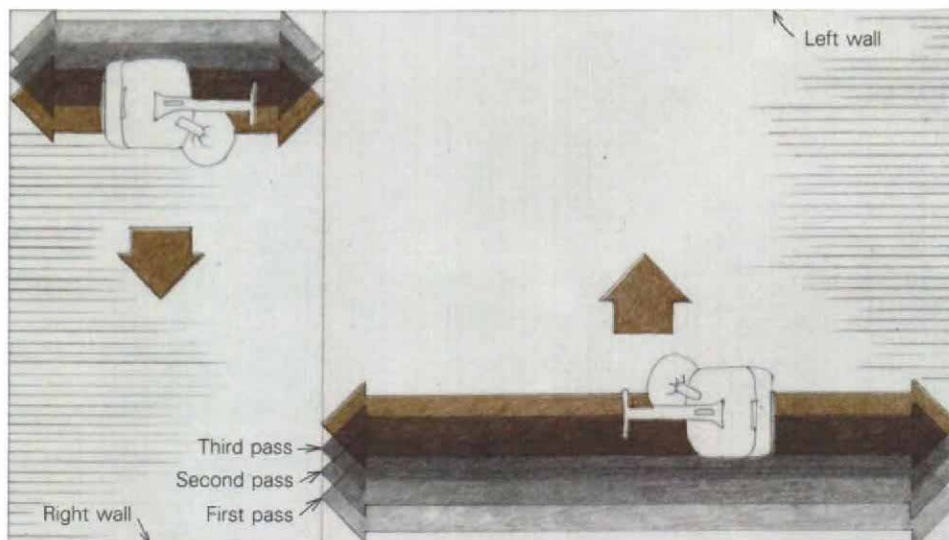
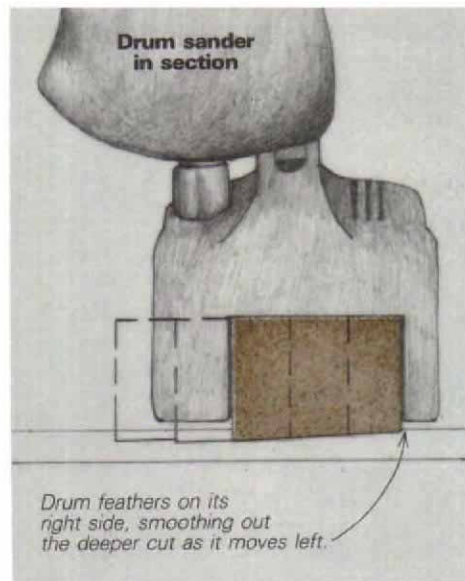
Unlike the drum sander, the edger makes its deepest cut on the right-hand side (at about one o'clock), and should be moved across the floor from left to right. A standard pattern for moving the tool is the semicircular path shown in the drawing, bottom right. There are other ways to operate an edger, too. Do whatever works best for you. Sand the areas missed by the drum sander with the same or a slightly finer grit.

When the entire floor has been sanded with coarse-grit paper, fill any holes in the floor. I use a lacquer-base filler blended to match the species of wood that I'm finishing, and I spot-fill nail holes and cracks between boards with a putty knife. If it's a top-nailed floor with a lot of nail holes or a parquet floor with numerous gaps, I trowel on the filler with a concrete trowel and wipe away the excess with a burlap rag. When the filler has dried, the floor can be sanded with medium (40 to 60-grit) paper. When you've finished with the drum sander and edger, check for shiners—nailheads turned silvery from being sanded. Set them, and refill the holes.

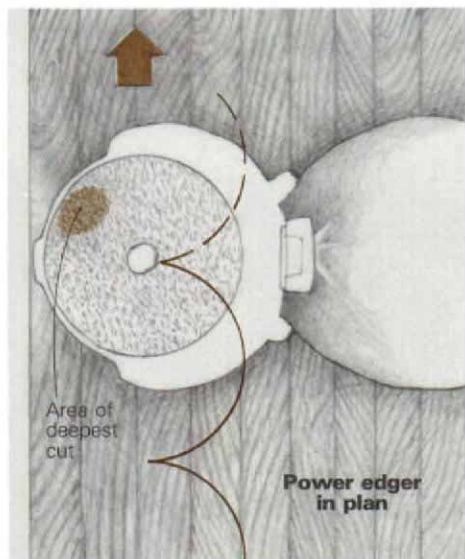
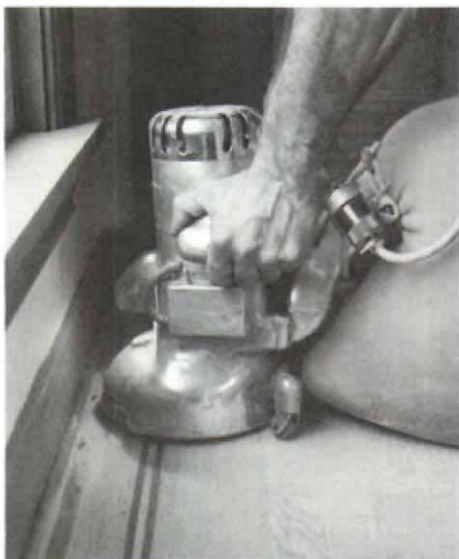
Final sanding should be done very carefully with 80 to 120-grit paper. Feathering is most important now because any ridges will show in the finished floor.

When the floor has been completely drum-sanded with the last paper, clean up the corners. For this task, the professionals I know use a common paint scraper, sharpened to a razor edge with a file or stone. Most of the time you should pull the scraper with the grain, but for hard-to-reach crannies you may have to work it at a 45° angle. This is acceptable practice, but never pull across the grain. When the scraping is done, hand-feather the perimeter with a sanding block wrapped with the final grit.

Cleanup—Sweep the ceiling, walls and floor as clean as you can with a good broom. Next, lightly dampen a medium-sized towel with paint thinner, lacquer thinner or alcohol, wrap it around the broomhead, and go over the entire floor with it. This is called tacking the floor, and it will collect most of the fine dust that still remains. Thoroughly vacuum the edges and corners using a crevice attachment, and you're ready to apply stains, sealers and finishes. □



The drum sander, top left, is heavy and unwieldy. Using one takes some getting used to, so if you'll be doing your own floor, practice in an area that will be out of sight. When you're ready, begin sanding a third of the distance up the floor, as shown in the drawing, above. Push and pull the sander over the same area before advancing 2 in. to 4 in. for the next pass. When you've done two-thirds of the floor, reverse direction and sand the rest of the floor in the same manner.



The power edger sands the spots you can't reach with the drum sander. Its heavy metal guard keeps the disc from touching the baseboard. A looping, semicircular motion, as shown at right, will keep the edger moving in the correct direction and prevent it from gouging the floor.