

Grate Idea!

When the old timers changed their homes from fireplace and stove heating they used gravity hot air, steam or hot water. Gravity hot air required some large return air ducts in the floor. They put a metal bottom on a joist space to become a duct. Code guys today would have a heart attack to see that done. These large returns needed a cover in the floor. They often made them out of wood. We had to fill in a hole in the floor from an air conditioning duct so we decided to make an old fashioned wooden one. I had studied the old ones and realized they used a technique used by woodworkers called the box joint.



You need a dado blade on your table saw. An adjustable one is ideal but if you do not have one pick a combination of dado blades about a quarter of an inch thick and then cut your strips that exact thickness.



I cut my strips a little oversized and then planed them to make them smooth. Sanding would do the same thing.



Cut several extra strips as the little nibs can break off in the process. Don't cut your strips to length until after you have assembled them.

Screw a piece of wood to your sliding miter gauge to act as a fence. Send the miter gauge and wood across the dado blade cutting the first slot.



Make an index pencil mark on the wood and miter gauge. Move the wood over the exact width of the planned spaces in your grate. Cut the second slot in the fence. Move the wood back to the index mark and screw it back on again. The blade should be half or more as high as your strips are wide.



Place a little piece of your strips in the slot. I made mine long so I could cut five strips at once. Wax the saw top and sliding miter gauge so everything moves smoothly.



Cut one slot in your strips then move the strips onto the little strip of wood and cut another slot.



Keep doing it over and over until the whole length of strips is cut.

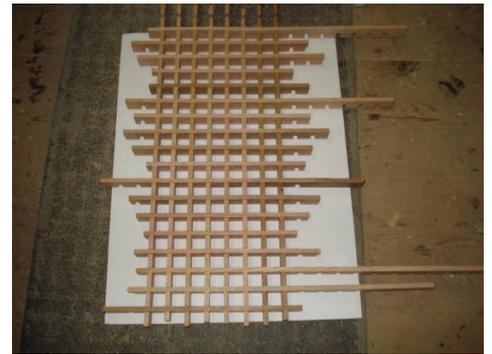




Use a soft hammer to work the strips together. If they are tight you do not need any glue. Too tight and they are a pain to put together.



When you are finished assembling, cut the ends of the strips off.



Paint the inside of the duct and any joists that show black so they do not show.

Here is the new grate installed in the floor. With a little floor repair and refinishing, the floor and grate will be as good as old.

