

A NOVEL CHIMNEY.

A chimney involving some features of construction which are rather novel, at least in this country, says *Country and Building*, is the one which has been erected in connection with the new power plant at the Joseph Dixon Crucible Company, at Jersey City, N. J. The chimney is built of radially moulded bricks perforated in such a way as to insure regularity of draft by preventing radiation through the walls and thus diminishing the susceptibility to atmospheric changes. The bricks are moulded in sizes and shapes of sufficient number for the construction of a chimney of any diameter, and of conforming decreasing radius to the progress of the structural elevation. The perforations are intended not only to form dead air spaces, but also to give a better hold to the mortar, and, it is said, to increase the joint adhesion.

HANDLING SHINGLE SAWS.

J. W. Ball, in the *Wood-Worker*, says: A knowledge of straining or tensioning shingle saws is becoming more necessary for a filer every day. Fifteen years ago the feeding of shingle saws was principally done by men of middle age. Why? Because they had more patience and experience than the young man of that time. There are men that can hammer shingle saws so that a man of little experience can do good work on them. I have hammered 18-gauge shingle saws for men to run that had not two months' experience, and they made a success of it just because the saws were properly hammered for the motion. I will not attempt to explain saw-making, but will say a few things that may help the filer.

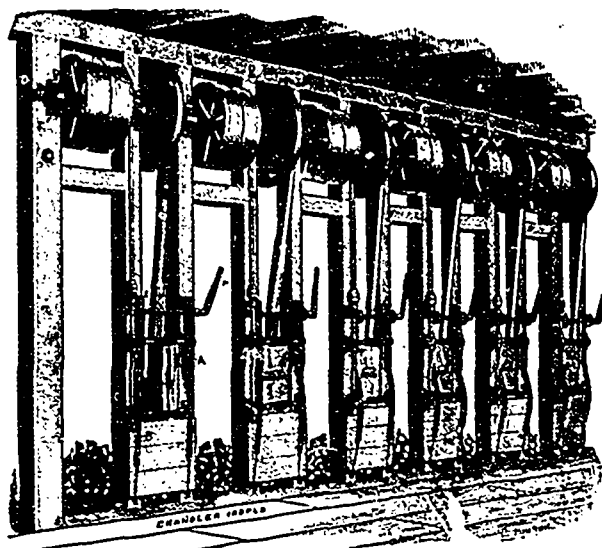
I have known of a shingle saw being hammered without removing it from the flange. Never do this as no man can tell much about it this way. Always take the saw from the flange. Use the straightedge from center to rim, then use it crosswise of a line running from center to rim. Do this over every inch of the saw. If you use a long straightedge on a saw that has lost all its tension,

you may find it to stand in a twist. Do not try to bend this twist out as, the rim being so loose, will cause it to stand in this twist; simply stretch the saw from center to very close to the rim. When you have done this on both sides of the plate and filed the body of the saw, you will not be able to find that twist; but do not fill the center too full.

When using the straightedge on the bevelled side of the saw you may rim from center to the outer edge of flange seat, then from there crosswise of a line running from center to rim. Use a 12-inch straightedge for this, then to finish use as short as 6-inch. Be sure that your shingle saw shows tension clear out to the rim, leaving the extreme cutting edge the tightest; with a gradual or even tension toward the center. For saws 40 inches in diameter, 16-gauge rims, to run 1,600 per minute, the center should sag from a straightedge that reaches clear across the plate, about 7 gauges; that is, the thickness of a 7-gauge piece of steel. If the saw is of good temper and steel it will be about the proper thing, but if the extreme

cutting edge is not the tightest it will not do its work if the center should sag one inch, but would flutter on the rim when under motion.

You cannot tell much about your saw when screwed down to the flange; that is, about the tension. Always stake it off the flange to test the tension or strain. Some people hammer more on the block side of the saw so as to hold it into the block a trifle, but for vertical machines I prefer it tensioned perfectly even, both sides alike; for horizontal machines they work well strained a little more on one side—just enough to counteract the weight of the rim, as it has a tendency to lop down a trifle when under motion. Do not use a cross-face hammer to take tension out of a shingle saw; use the round-face or dog-head, with not very round or sharp face, so it will not cut the plate. Use a steel-faced anvil and have it a little oval or a little high in the center. Do not use a flat anvil for shingle saws; it will not give the desired results. I like a 6x9-inch, or a round-faced anvil say 7 inches in diameter, of about 80 pounds weight. I use the 4½ pound hammer to strain or tension with and 2½-pound hammer to even and finish with, but this is to everyone's option. Use what you can handle best is my advice.

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