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and their use was abandoned by Dedge Mfg, Company several years ago. Experience has fully justified the wiedom of doing so.

After the rim (minus the edge segments) has been formed as described, it is chucked on a lathe and the inner surface is turned out smooth and true, and is then sawed in two transversely, on an irregular curved line to form interlocking portions, and the mortise notches are cut to receive the ends of the spoke arms.

THE ARMS.

The spoke arms are made from ash or maple planks, those woods being preferred on account of strength. The arm stock having been cut to proper dimensions, the hub block is glued on and the end wedge-

shaped tenon is cut.

The two arms required for one pulley are then secured together with dogs and simultaneously sawed to shape on the edges. The rim and arms having thus been prepared they are united, and the rim joint made solid and secure with glue and wedges. There is always a slight vacancy between the end of the arm and the rim, because it is practically impossible to fit the arm tenen so that it will exactly fill its mortise. This space is filled with melted sulphur which has the property of solidifying without shrinking, and thus the rim receives solid support over the end of the arm.

When the arms have been put in place, the hub blocks will be about half an inch apart, and it is then necessary to bolt the two halves together; pieces of wood about half an inch in thickness are placed between the hub blocks to prevent all springing of the

pulley spoke arms under strain.

The arms having been inserted, the two halves are then bolted together with pieces of wood between the opposing faces of the hub and rim ends. The pulley is then again chucked in a lathe and the centre hole is turned out. The pieces of wood inserted to the pieces of wood inserted. serving to keep the halves of the pulley slightly apart, and affording the tool solid wood in which to work after being centreturned to a standard diameter, so that it is adapted to any one of the standard sized interchangeable centres or bushings. The edge rings are then glued on to complete rim.

These edge rings are then cut with a straight saw in line with the previous cut, so that the rim is again entirely divided and separable into two parts. The pulley is ready for the final finish by turning its face and edges.

The packing strips are therefore removed and the pulley is placed on a mandril which may exactly fit the centre-hole or is made to fit the same by means of the proper one of the interchangeable centres, interposed be-tween said mandril and pulley. The man-

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