(12) **United States Patent**
Wiswell

(10) **Patent No.: X7535**
(45) **Date of Patent: Apr. 12, 1833**

(54) **WHEELS, SPOKES FOR**

(76) Inventor: **Daniel H. Wiswell**

The Schedule referred to in these Letters Patent, and making part of the same, containing a description in the words of the said Daniel H. Wiswell himself of his Improvement being a machine for making Spokes for wheels.

Be it known, that I, Daniel H. Wiswell of Petersham, in the County of Worcester, and State of Massachusetts, have made an improvement in the useful arts, being a machine for making spokes for wheels which is described as follows.

This machine consists of the following principal parts, viz. The frame which supports and incloses the machinery: the wheel for cutting the tenon, and the wheel for rounding the edges of the spoke: the carriage and rack which carries the spoke to the wheel for dressing the edges: the arbor with the spiral worm which works in the rack of the carriage: the weight or spring for drawing back the carriage: circular saws for shaping the timbers: and the gearing by which the machinery is moved.

The frame is adapted in size and strength to the machinery to be inclosed and supported, and is constructed by framing and tenoning together about six posts, four side pieces or girths, two end pieces and a girth or cross piece.

The wheel for cutting the tenon is made of cast iron, about 15 inches diameter, with a groove in the edge of it to receive four or more cutters.

The wheel for shaping the edges of the spoke, is of the same size as that before described, having also four or more cutters, of the figure, shape, or inclination of the front of the spoke. When the front and back of the spoke are required to be made of different shapes, then another wheel is added, with a similar groove, to receive cutters for rounding the back of the spoke to the figure required; or an additional groove may be made in the wheel before described for that purpose: the wheel in that case must be made broader.

Two circular saws for shaping the timbers for the spokes are placed parallel to each other and upon the same arbor or arbor which turns the before described wheels.

The carriage and rack which carries the spoke to the wheel to be dressed is placed below the before mentioned wheels. The carriage is moved by an arbor with a spiral screw on one end working into the rack on the underside of the carriage. The same arbor with one end often extended for turning on a pin or pivot to which is attached a lever for moving it up and down; and by which the same arbor is put in and out of gear with the rack below the carriage. The other end turns in a box fixed in a permanent cross piece of the frame, and has on it a [illegible]

supports the drum arbor for putting it in and out of gear. A small pin on the side of the carriage lets off the spring catch which supports the end of the drum arbor to disk, and throw it out of gear, and by pressing down the before mentioned lever attached to the bar below, it is raised and the drum arbor put in gear.

A caught attached to a cord passing over a pulley, and fastened to the carriage, brings it back again, when the operation of shaping the spoke is performed.

The gearing. A wheel of a suitable size having a groove in it is fixed near the end of the mandrel, supported on the frame. On its arbor is a bevil wheel working into the one before mentioned placed on the arbor which carries the spiral drum working into the rack. A wheel is placed on the end of the rack which carries the shaping saws and the cutter, and a band passes round this wheel and that which drives the arbor for moving the rack. Motion is given to the machinery by the hand or any other power.

Operation. The timber for the spoke is first shaped to its proper thickness by the circular saws. The tenon is then formed by the cutters in the groove of the tenon taking wheel. The spoke is then removed and placed upon the carriage; one end resting against a pin, and supported by a wedge; and screwed fast at the other: when the front edges are shaped by the cutters it is turned and the back edges shaped either by the same cutters, or others put upon another wheel, when intended to be of a different thickness and shape.

The invention I have claimed and desire to be secured by Letters Patent consists of the whole of the before described machine, when taken together; particularly the wheel of cutters for shaping the edges of the spoke; but no claim is made to circular saws, the gearing, turning wheel and other parts before described taken separately.

For a further illustration of my invention, I refer to the model and drawing of the same deposited in the Patents Office.

In testimony whereof I have hereunto subscribed my name this 6th day of April 1833.

Daniel H. Winnell

Witnesses
William P. Elliot
Will. Robb,

970 words

Exd. H.L.G.

(Patented April 12. 1833)