the cost of a man's compared with the same amount of power in a steam engine. Judged from the nature of the operation, that of walking back and forth, carrying a sack or basket, this estimate is perhaps a correct one, supposing the man to be continually employed at this one thing.

PATENTS AND IMPROVEMENTS IN THE LUMBER TRADE

Patents issued December 16th, included the following.

For tool-holder for lathes to Lewis Reder, Wilmington, Del. A washer, fitted loosely around the tool-post, with its sides inclined in opposite directions, one higher or thicker than the other, and a shoe, upon which the tool rests, fitted through the slot in the post bearing upon the face of the washer, having the ends of its under side inclined, and one thicker than the other. With the thick end of the shoe one the thin side of the washer the tool will be level; but with the thin end on the thin side, the tool will be inclined.

For lathe-machine, to Theodore Bruno, Saginaw, Mich. The saw-table is provided with a catch which prevents the lathe-bolt from being drawn back by the carriage after it is sawed from the slab.

For device for making dovetails, to George Ashby, Decatur, Ill. Dovetails are laid off by sharp edges on the marker being pressed upon the board.

For head-block for saw-mills, to Gustavus Zachos, Indianapolis, Ind. The setting shaft is operated through a system of bevel-gears moved by a hand-lever, to which is attached two segmental gears.

For the week ending December 23:

For machine for shaping pickets, to Andrew J. Sutherland, Ann Arbor, Mich. Pickets can be pointed in various forms by an adjustment of the cutters upon the moving parts.

For try-square, to Leonard Bailey, New Britain, Conn. A screw with a conical swell passes through a slot and holds the blade firmly in position.

For saw-set, to Roswell F. Cook, West Potsdam, N. Y. The hooked extremities of the two branches of the U-shaped spring enter the one a notch in the short arm of the hammer-lever, and by this series of notches the spring, which is compelled to vibrate with every movement of the hammer, may be adjusted to vary the force of the blow. The hammer is successively elevated and given the initial movement in the opposite direction by a hand-lever, which carries a pin which alternately strikes opposite shoulders of a recess in the surface of the hammer-lever.

For water-wheel, to John Kunkle, Newton Falls, Ohio. The buckets are constructed with closed sides and a deep open mouth with curving corners, so that no water can escape from the sides, and therefore act directly upon the wheel in the line of rotation. A conical hub prevents the water from lodging upon it, but flows down to the bucket and escapes.

For molding-machine, to Nicholas Jenkins, Madison, Conn. A series of guide-plates are secured upon one side of the material to be operated upon, which is carried forward by suitable feed and guide rolls and presented in the desired position to the action of the forming cutters.

For driving-belt, to Alexander Schpakowsky, St. Petersburg, Russia. The driving-belt consists of a series of oval or flattened helices connected by intermeshing the adjacent elongated extremities and inserting a transverse rod or bolt between the intermeshed parts. Each helix is composed of a single piece of wire and extends with the width of the belt.

For belt-tightener, to William Sellers, Harvard, Mass. The journals of the driven pulley are supported in sliding boxes, whereby the driving pulley is moved away from the former, so as to produce the required amount of tension of the belt. The shaft of the driven pulley is adjustable vertically, so as to maintain the drum in a true running position.

Extensions were granted to the following patents:

For improved lathe attachment for cutting veneers, granted to B. F. Sturtivant, December 27, 1859. The claim is for method of compressing the wood in the immediate vicinity of the edge of the knife by means of a presser bar or its equivalent.

For improved machine for planing curved surfaces, granted to J. B. Grosvenor, December 27, 1859. The claim was, 1. For the employment or use of adjustable or yielding feed-rollers when combined with a bearing-roller, or a proper bearing surface, and arranged, relatively with each other, to admit of the feeding of a circular, oval, and serpentine forms to the cutters.

2. Placing the rollers in an adjustable frame or box, fitted in an adjustable box, and used in connection with elastic bars or their equivalent, and the bearing roller whereby the frame or pattern may be properly adjusted, and retained in proper position between the rollers while being acted upon by the cutters.

Considerable improvement, says the Greenwood correspondent of the Clark County Republican, has been going on about the mill of Honeywell & Miller during the fall and early part of the winter. Some new buildings have been erected, one of which is a new boarding house for the accommodation of their men. They have also built a large shed for the storing of shingles, a large stock of which they keep on hand, and they are of an excellent quality, too.