

**LATEST CANADIAN PATENTS.**

**Improvements in Gear Teeth.**

Patent No. 25,229—H. H. Warren, of Montreal, dated Oct. 27th, 1886.

This invention has reference to a new art or process of forming gear teeth on discs, by which such discs are converted into gear wheels. Heretofore such teeth have been produced by various systems of cutting by tools or by grinding apparatus, which grinding is nothing more than another name for cutting. This process consists in forming the teeth by the friction of a body or friction discs, or rubbing instrument, moving at high speed, which does not cut the body upon which it acts, but by friction of those parts of the rubbing instrument upon the parts of the body acted upon, which are brought into contact with the rubbing instrument, they are heated to such an extent as to become soft or plastic, and in this shape they are rubbed off by the rubbing instrument, which is kept in constant motion.

**Flour Dressing Machine.**

Patent No. 25,292—John E. Wilson, of Galt, Ont., dated Oct. 30th, 1886.

It relates particularly to that class of flour dressing machines in which a cylindrical centrifugal bolt and an internal reel are used, forming an annular bolting space. The objects are to obtain an uninterrupted bolting surface, and to make the surface so obtained more effective by keeping the light fluff or dust from it, whereby the heavier stock will pass the more freely through the bolting silk. An internal reel with two heads secured upon a central shaft forming a zig-zag cylinder surface between said heads, consisting of longitudinal slats set at an angle to each other and leaving a narrow opening near the apex of each pair, a clear space being left between the apex of each pair of slats and the outer reel. The cross section of one of each pair of slats falls in the line of the radius, or nearly so, and the other connects to the former at the inner edge and runs to the top edge of the next in the direction in which the reel turns, which, however, it does not touch, but leaves a clear narrow space. The double reel has, as usual, a longitudinal inclination towards the tail end, where separate means of egress are provided for the light fluff and dust and for the heavier tailings, the bolted stock having passed through the silk being removed, as usual, by a pair of screen conveyors at the bottom.

**Improved Cross-Cut Saw.**

Patent No. 25,338—Silas Tates, of St. Thomas, Ont., dated 11th Nov., 1886.

This invention relates to the cutting teeth of cross-cut saws in combination with a drag tooth, the alternate cutting teeth of each pair having a bevel edge on opposite sides so as to present a sharp cutter on both sides of the thickness of the saw kerf. A drag tooth is placed between each pair of cutters in such a manner as greatly to facilitate its operation, the object being speed in its working.

**Machine for Working Lumber.**

Patent No. 25,055—S. B. Burris, Victoria, B. C., Canada, dated Sept. 30th, 1886.

The object of this invention is to provide a machine for preparing timber and lumber to be used in the construction of buildings and relates to improvements in woodworking machines, the construction and arrangement of which will provide a piece of timber surfaced, grooved and divided. The machine is provided with upper and lower cutter heads for simultaneously surfacing and grooving opposite sides of a timber, and cutters arranged at an angle to the line of motion of the timber passing through the machine, having mechanism for periodically dropping the cutters into engagements with the edges of the timber.

**Improvements in Pulleys.**

Patent No. 25,108—Geo. Campbell, Toronto, Canada, dated Oct. 12th, 1886.

This improved pulley consists, essentially, in having a light metal rim connected to its hub by means of a series of light rods which extend substantially at a tangent from the hub of the pulley to which they are connected. There will be an outward or tension strain to each spoke and as the metal rods, of which the spokes consist, will stand a greater strain of this kind than they would a mere cross or breaking strain, it is possible to make this pulley of much lighter material than were the spokes arranged to radiate from the centre.

**Adjustable Carriages for Saw Mills.**

Patent No. 24,674—George Strong, Millowner, South Rockwood, Mich., U. S. A., dated 2nd Sept., 1886.

The nature of this invention relates to carriages for saw or bolt mills and is designed more especially for cutting stave bolts. The advantage to be derived from this improved carriage is the great saving of timber, as it can be cut in such a manner that there will be no staves known as washboard staves. In practice it is designed to cut the log up into lengths suitable for stave lengths; they are then placed on the carriage and the first or perpendicular cut is made, after which the log is cut in two; one half is placed on the carriage with its smooth surface downward—the bolts are not cut squarely through the log but on an angle. A lever is employed to raise and lower the back end of the carriage for different cuts.

**Automatic Grain Weighing Machine.**

Patent No. 25,069—D. D. Kuhlman, Atchison, Kansas, U. S. A., dated Sept. 30th, 1886.

The objects of this invention are to render the machines more efficient in operation; to provide novel means for cutting off the flow of grain to the grain weighing bucket when the quantity therein overbalances the scale beam and is discharged from the bucket into a secondary hopper thereunder; to provide novel feed controlling valves for partially stopping the flow of grain as the quantity of the grain weighing bucket is nearly sufficient to overbalance the scale beam; and to provide novel locking devices for holding the swinging partition in the grain bucket at either side to which it is swung by the discharging grain.

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Galt, 9th Nov., 1886.

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Persons desirous of tendering are requested to make personal enquiry relative to the work to be done, and to examine the locality themselves, and are notified that tenders will not be considered unless made on the printed forms supplied, the blanks properly filled in, and signed with their actual signatures.

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