Jan. 22, 1929. 1,699,582

H. C. BREIDENBACH

VENEER LOG SCORING MECHANISM

Filed June 20, 1927 2 Sheets-Sheet 1

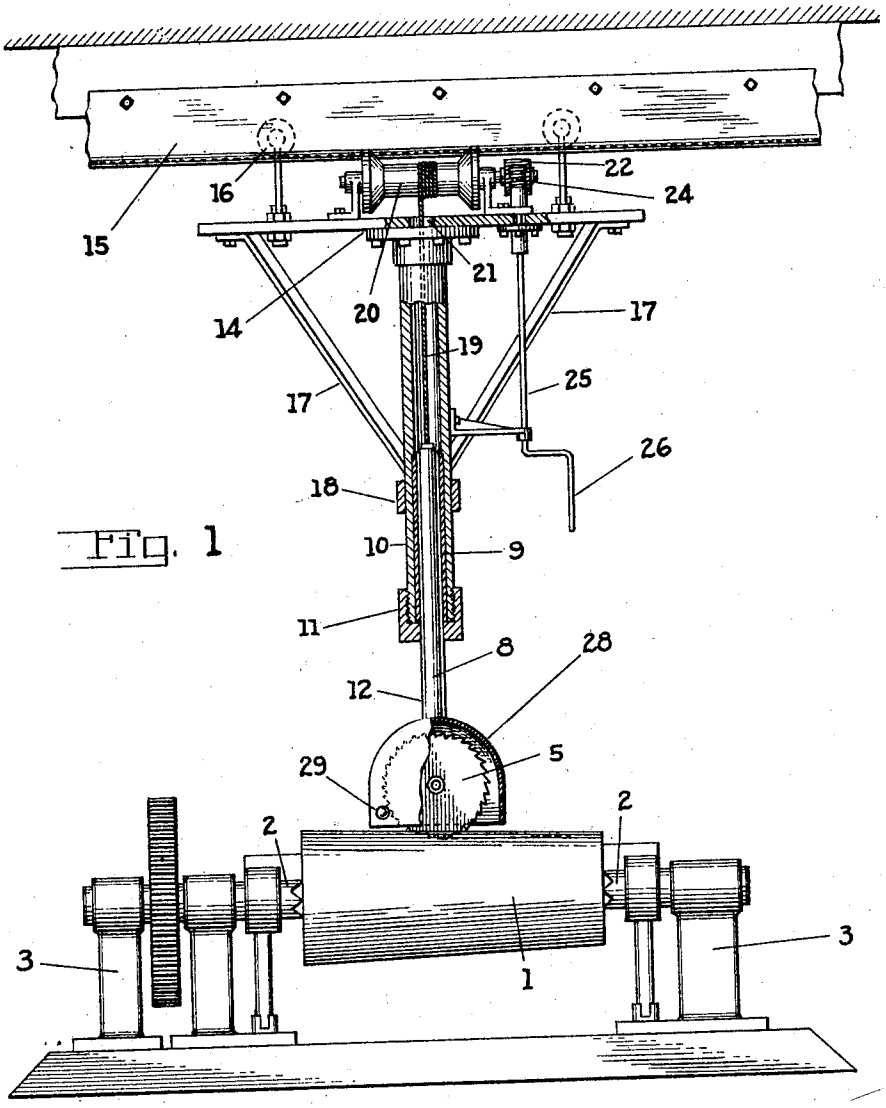

Fig. 1

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Fig. 2

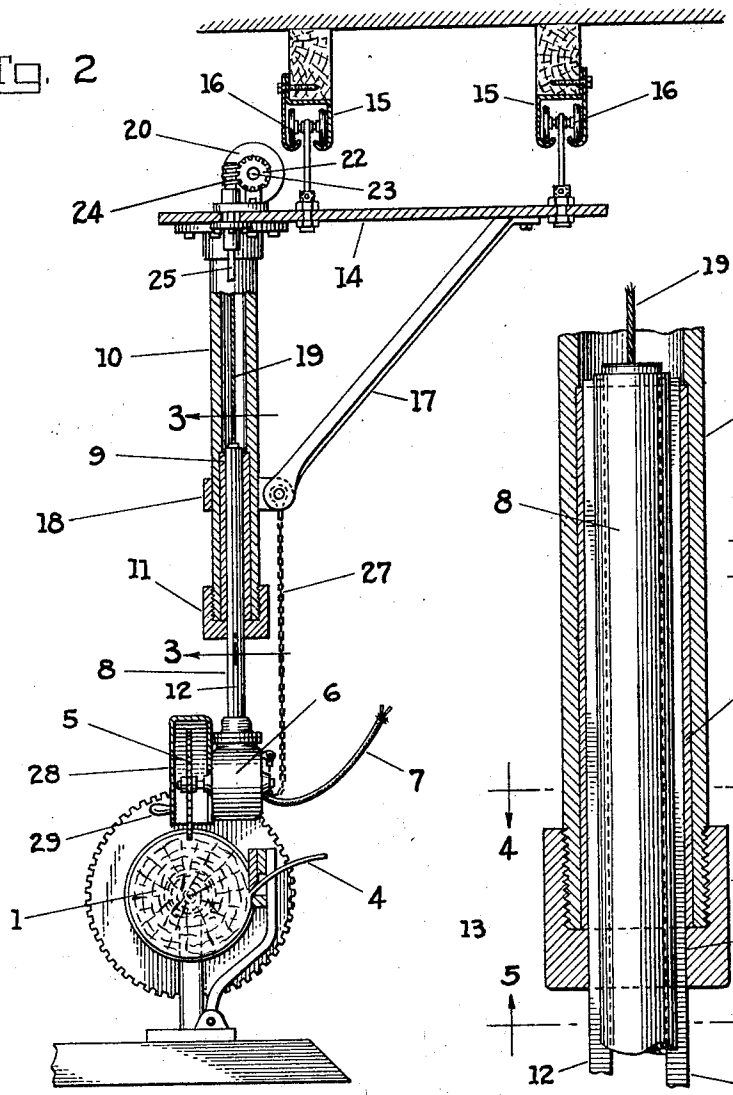


Fig. 3

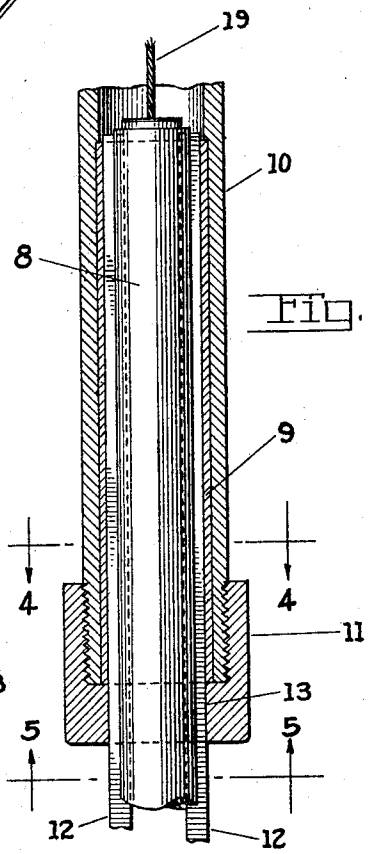


Fig. 4

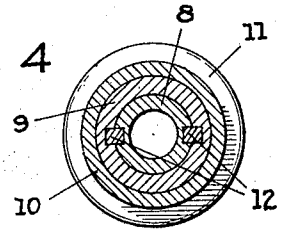
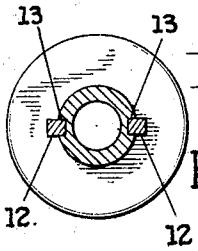


Fig. 5



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UNITED STATES PATENT OFFICE.

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VENEER LOG-SCORING MECHANISM.

Application filed June 20, 1927. Serial No. 200,194.

This invention relates to scoring machines for veneer forming material, and one feature of the present invention is the provision of a simplified structure embodying a driven saw and means for manipulating the same, over an object or log to be scored and then converted into veneer strips.

A further feature of the invention is the provision of means for readily and easily adjusting the saw vertically above the object to be scored, the adjusting mechanism having an automatic locking feature for holding the saw in adjusted position.

A further feature of the invention is the provision of means for holding the saw and the parts carrying the same against lateral swinging or swiveling movement.

A further feature of the invention is the provision of a carriage for carrying the saw structure and means for transporting the saw and its parts longitudinally of the object to be scored.

A further feature of the invention is the provision of means for limiting the downward movement of the saw.

Other objects and advantages will be hereinafter more fully set forth and pointed out in the accompanying specification.

In the accompanying drawings which are made a part of this application, Figure 1 is a side elevation of a veneer forming machine embodying my invention with parts in section; Fig. 2 is a transverse sectional view therethru; Fig. 3 is an enlarged detail sectional view as seen along line 3—3, Fig. 2; Fig. 4 is a sectional view as seen along line 4—4, Fig. 3; and Fig. 5 is a similar view along line 5—5, Fig. 3.

Referring to the drawings in which similar reference numerals designate corresponding parts thruout the several views, 1 indicates a log from which veneer is to be made, said log being supported in horizontal position by means of shafts 2, which are in turn rotatably supported in standards 3, as is usual, a veneer cutting blade 4 being mounted in position to engage the face of the log 1 and cut strips of veneer therefrom.

In cutting strips of veneer from logs, it is preferable to score the log lengthwise forming one or more kerfs in the peripheral surface thereof, and to accomplish this result with the least expenditure of time and labor, a saw 5 is suspended in position to be moved lengthwise of the log, and operated in any suitable manner, preferably by a motor 6, which receives its electrical energy from a source of supply, thru wires 7, of a length to allow movement of the saw lengthwise of the log.

Extending upwardly from the housing of the motor 6 is a shaft 8, which enters a bushing 9 in the lower end of a hollow column 10, the bushing being held within the column by means of a cap 11, which screws on to the lower end of the column. The shaft 8 is held against swiveling action within the column 10, but at the same time, left free to be adjusted vertically therein, by forming splines 12 on the shaft 8 which enter grooves 13 in the bushing 9 and cap 11.

The upper end of the column 10 is fixed to a carriage 14, in appropriate manner, said carriage being in turn suspended from trackways 15, by rollers 16, said trackways being suspended from suitable parts of a building and extended parallel with the veneer machine so that the saw may be readily and quickly moved the length of the log 1, in either direction. The column 10 is preferably suspended from the carriage adjacent one edge thereof, and to prevent lateral swinging movement of the column and saw carried thereby, brace arms 17, are provided, their outer ends being secured to the carriage in separated position, while their opposite ends are secured to a collar 18 surrounding said column, at a point below its medial line.

The saw 5 and parts associated therewith are raised and lowered, to adjust the saw to the diameter of the log 1, by attaching to the upper end of the shaft 8, a cable 19, the opposite end of the cable being attached to a drum 20, upon the carriage 14, and on which it is adapted to be wound to raise the saw, the cable passing thru an opening 21 in the carriage. In order to quickly and easily manipulate the drum for raising or lowering the saw, a worm gear 22 is attached to the shaft 23 carrying the drum 20, with which cooperates a worm 24, attached to the upper end of a crank shaft 25, the lower end of the shaft 25 terminating in a crank 26, in convenient reach of the operator. The worm and gear not only provide means for operating the drum for raising or lowering the saw, but also forms a lock for preventing rotation of the drum until such time as the crank shaft 25 is operated to rotate the drum, thus holding the saw in exact adjusted position.

The descent of the saw is limited by attaching one end of a chain 27 or similar device

to the collar 18, and the opposite end thereof to the casing of the motor 6, so that the saw can only descend a prescribed distance, thus preventing an accident in the event the cable 19 should break or the worm and gear become disarranged. A hood 28 is preferably disposed over the saw 5 to protect the operator and a hand grip 29 may be attached thereto for applying pressure for moving the saw lengthwise of the log.

In operation, after the log has been properly mounted within the machine, the saw is positioned at one end of the log and then adjusted vertically so that it will form a kerf in the face of the log when moved lengthwise thereof. Power is then applied to the motor and the saw moved lengthwise of the log, the worm and gear holding the parts in perfect adjusted position. If additional kerfs are to be formed, the saw is returned to its initial end of the log and the log turned the prescribed distance to receive the additional kerf and the above operation repeated.

While the description and drawing illustrates in a general way, certain instrumentalities which may be employed in carrying the invention into effect, it is evident that many modifications may be made in the various details, without departing from the scope of the appended claims, it being understood that the invention is not restricted to the particular forms, herein described.

I claim as my invention:

1. Means for scoring veneer forming material comprising a saw; a motor for operating said saw; a shaft attached to said motor; a hollow column into which said shaft extends; a grooved bushing within said column for receiving the end of said shaft; splines on the shaft adapted to enter said grooves and prevent rotation of the shaft within the column; a cap secured over the lower end of said column for retaining the bushing within the column, said cap having an opening for the passage of said shaft and grooves to receive said splines, said splines preventing the casual removal of said cap; a carriage to which said column is attached; means for adjustably supporting said carriage; a drum on said carriage; a cable between said shaft and drum; a worm and gear for rotating said drum for winding the cable on or off the drum, said worm and gear serving to normally lock said drum against rotation; and a crank mechanism for operating said worm and gear.

2. Means for scoring veneer forming material comprising a carriage, supporting means for movably suspending said carriage in an elevated position, a hollow column attached to said carriage adjacent one edge thereof, brace arms having one of their ends attached to that edge of the carriage opposite the edge to which the column is attached, means for attaching the opposite ends of said brace arms to said column at a point below its medial line, a shaft slidable vertically in said column, means for raising and lowering said shaft and holding the same in adjusted position, and a kerf forming means carried at the lower end of said shaft and adapted to move therewith.

3. Means for scoring veneer forming material comprising a carriage, elevated trackways, rollers for suspending said carriage in position to be moved lengthwise of the trackways, a hollow column attached to said carriage adjacent one edge of the carriage, brace arms extending from said column to the opposite edge of the carriage from that engaged by the column, a bushing in the lower portion of said column, a cap fitting over the lower end of said column for retaining the bushing within the column, said bushing and cap having spline receiving grooves therein, a shaft extending through said bushing and cap, splines on said shaft adapted to engage the grooves in the bushing and cap, means for moving said shaft vertically through said bushing and for holding said shaft in adjusted position, a motor attached to the lower end of said shaft, and a saw attached to and operable by said motor.

In testimony whereof, I have hereunto set my hand on this the 28th day of May, 1927, A. D.

HENRY C. BREIDENBACH.