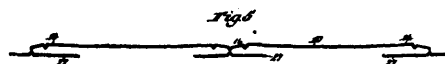


tially as described. 2nd. The combination with a table for supporting a stave bolt, a knife bar, a stave cutting knife secured to the knife bar, the crozing knives for crozing the staves, of residual rib removing knives or planes arranged in proximity to the crozing knives to provide a space between the stave cutting knife and the rib removing knives or planes for the passage of the stave being severed, substantially as described. 3rd. The combination, with a table for supporting a stave bolt, of a knife bar and a stave cutting knife secured to the knife bar, and having cutting end portions constituting continuations of the main cutting edge, and fashioned to such shape that with a single cut of the stave knife there is severed from the stave bolt a stave which is chamfered, crozed and equalized, substantially as described. 4th. The combination with a table for supporting a stave bolt, of a knife bar, a stave cutting knife secured to the knife bar and having cutting end portions constituting continuations of the main cutting edge, and fashioned to such shape that with a single cut of the stave knife there is severed from the stave bolt a stave which is chamfered, crozed and equalized, and knives or planes arranged in rear of the stave cutting knife, and which as the stave is being cut remove the residual ribs left on the stave bolt by the formation of the croze in the preceding stave, substantially as described. 5th. The combination with a table for supporting a stave bolt, of a knife for severing a stave from the stave bolt, crozing and chamfering cutters for crozing and chamfering the staves, and residual rib removing knives or planes arranged in proximity to the crozing and chamfering cutters to provide a space between the stave cutting knife and the rib removing knives or planes for the passage of the stave being severed, substantially as described. 6th. The combination with an oscillating table for supporting a stave bolt, of a stationary knife bar, and a stave cutting knife secured to the knife bar, and having cutting end portions constituting continuations of the main cutting edge and fashioned to such shape that with a single stroke there is severed from the stave bolt a stave which is chamfered, crozed and equalized, substantially as described. 7th. In a stave cutting machine, the combination of a stave knife whose extreme cutting end edges constitute continuations of the main cutting edge of the knife, and are turned laterally to equalize the stave at the same stroke it is severed from the stave bolt, with rear cutting knives or planes which plane off the end elevations left on the stave bolt and arranged in such proximity to the stave severing knife as to provide a space for the passage of the stave being severed, substantially as described. 8th. In a stave cutting machine, the combination with a table which carries the stave bolt, of a lengthwise and transversely curved stave cutting knife having crozing and chamfering edges which constitute continuations of the main cutting edge and provided with laterally projecting end edges which equalize the stave at the same stroke it is severed from the stave bolt, substantially as described. 9th. In a stave cutting machine, the combination of a stave cutting knife having its end portions fashioned with chamfering, crozing and equalizing cutting edges constituting continuations of the main cutting edge of the knife to chamfer, croze and equalize the stave at the same stroke it is severed from the stave bolt, with cutting knives or planes which plane off the ribs left by the formation of the croze and chamfer in the preceding stave, substantially as described. 10th. The combination of a table for supporting a stave bolt, a stave severing, chamfering and crozing knife provided at each end with a lateral cutting edge, and residual rib removing knives located at the rear of the stave severing knife and provided with angular portions co-operating with and lateral cutting edges of the stave severing knife to equalize the staves and bevel their end edges at the same stroke that the stave is severed from the stave bolt, substantially as described. 11th. The combination of a table for supporting a stave bolt, a stave severing knife provided at each end with a lateral cutting edge, and a knife or plane arranged in rear of the stave severing knife and provided with an angular portion which co-operates with the lateral cutting edge of the stave to equalize the stave and bevel its end edges at the same stroke that the stave is severed from the stave bolt, substantially as described. 12th. The combination with an oscillating table for supporting a stave bolt, of a vertically adjustable knife bar, a stave severing knife secured to the knife bar, a vertically adjustable crozing, chamfering and equalizing cutter arranged at each extremity of the stave severing knife and having the cutting edges constituting continuations of the main cutting edge of the stave severing knife so that at each cut there is severed from the stave bolt a stave which is chamfered, crozed and equalized, substantially as described. 13th. In a stave cutting machine, the combination with a table which carries the stave block, of a stave cutting knife the end portions and edges of which are fashioned to such shape that with a single stroke of the stave knife there is severed from the stave block a stave which is chamfered, crozed and equalized, substantially as described. 14th. A stave machine provided with a stave cutting knife having cutting end portions constituting continuations of the main cutting edge and formed to chamfer, croze and equalize the staves at the stroke which severs the stave body from the stave bolt or block, substantially as described. 15th. The combination with an oscillatory table for supporting a stave bolt, of a vertically adjustable knife bar, a knife secured to the adjustable knife bar for severing a stave from the stave bolt, a vertically adjustable crozing and chamfering cutter at each extremity of the stave severing knife, and a vertically adjustable knife or plane arranged in rear of the stave severing knife and which, as the stave is being cut, remove the residual rib left on the stave bolt by the

formation of the croze in the preceding stave, substantially as described.

No. 42,818. Stave Cutting Machine.

(Machine à découper les douelles.)



Luther L. Frierson, Mount Pleasant, assignee of Charles Willis Rich, Summertown, both of Tennessee, U.S.A., 4th May, 1893; 6 years.

Claim.—1st. In a stave cutting machine, the combination with a table, on which the stave bolt is placed, of a knife adapted to cut at one operation a plurality of staves and provided at its ends and intermediate thereof with crozing, chamfering and equalizing knives, to cut, chamfer, croze and equalize a plurality of staves at a single operation, substantially as described. 2nd. In a stave cutting machine, the combination with a table on which the stave bolt is placed, of a knife adapted to cut from the stave bolt a plurality of staves at one operation, chamfering, crozing and equalizing cutters arranged at the ends of said knife and intermediate thereof and rib removing knives arranged to remove the residual ribs formed on the stave bolt by the crozing of the staves cut therefrom, substantially as described. 3rd. In a stave cutting machine, the combination with a table, on which is placed the stave bolt, of a knife adapted to cut therefrom at one operation a plurality of staves, crozing, chamfering and equalizing knives arranged at the end of said knife and intermediate of said ends, and rib removing knives to remove the residual ribs formed on the stave bolt by crozing the staves cut therefrom, said rib removing knives having equalizing, or severing and shaping cutters which act in conjunction with the equalizing or severing cutters on the crozing and chamfering knives, substantially as described. 4th. In a stave cutting machine, the combination with a table on which the stave bolt is placed, of a knife consisting of a plurality of stave cutting sections, to cut from the stave bolt a plurality of staves at one operation, crozing and chamfering knives having equalizing cutters and arranged at the two outer, or extreme ends of said knife, and between the stave cutting sections thereof, and rib removing knives arranged to remove the residual ribs from the stave bolt and to act conjointly with the equalizing cutters on the crozing and chamfering knives, to shape and sever the ends of the staves, substantially as described. 5th. In a stave cutting machine, the combination with a stave cutting knife, consisting of a plurality of stave cutting sections, of crozing and chamfering knives, and shaping, or end forming knives, arranged at suitable points relatively to the crozing and chamfering knives, whereby a plurality of staves are severed from the stave bolt, at each single operation, and simultaneously crozed and chamfered at one end, and suitably shaped at the other end, substantially as described. 6th. In a stave cutting machine, a knife consisting of a plurality of stave cutting sections, each curved longitudinally to correspond with the bilge of the barrel or other article formed from said stave, and adapted to cut in a curved line corresponding with the circular body of said barrel or article, crozing and chamfering knives having equalizing cutters at the two extremities of said knife and intermediate thereof, and suitable rib removing knives, substantially as described. 7th. In a stave cutting machine, the combination, with a knife and with crozing and chamfering knives which cut, croze and chamfer a plurality of staves, and also sever and equalize the same at each single operation of the machine, of an oscillating table on which the stave bolt is placed, and rib removing knives arranged at suitable points, substantially as described. 8th. In a stave cutting machine, the combination, with a knife consisting of crozing and chamfering knives, which cut, croze and chamfer a plurality of staves, and also equalize the same at each single operation of the machine, of an oscillating table on which the stave bolt is placed, and rib removing knives arranged in proximity to the crozing and chamfering knives, to provide a space through which the staves being severed pass, substantially as described. 9th. In a stave cutting machine, the combination, with a plurality of stave cutting knives arranged to act simultaneously upon a stave bolt, of adjustable crozing, and chamfering knives, and adjustable shaping knives, to act upon the ends of the staves, substantially as described. 10th. In a stave cutting machine, the combination, with a series of stave cutting knives each longitudinally and transversely curved and acting simultaneously to sever from a stave bolt a plurality of longitudinally and transversely curved staves, of crozing and chamfering knives arranged at the end of each stave cutting knife, and having a suitable longitudinal curve to cut in the same line a transverse curvature with the stave cutting knives, substantially as described. 11th. In a stave cutting machine, the combination, with a plurality of stave cutting knives arranged to act simultaneously on the stave bolt, of crozing and chamfering knives arranged at the ends of the stave cutting knives and having equalizing cutters, adjustable rib removing knives mounted on brackets on a guide supporting bar, and means for giving a vertical and a universal horizontal adjustment to said knives, substantially as described. 12th. In a stave cutting machine, the combination, with a knife consisting of a plurality of stave cutting portions, of crozing and chamfering