

### No. 11,617. Improvements on Gilding Process. (*Perfectionnements aux procédés de dorage.*)

Leonard Laurence, (Assignee of Nicholas C. N. Laurence and Ernest G. Matzka,) Detroit, Mich., U. S., 7th August, 1880; for 5 years.

**Claim.**—1st. The process of applying gilding and bronzing powders to mouldings, &c., which process consists in first mixing the gilding or bronzing powders with a solution of chlorine, alcohol, turpentine, diluted acetic acid or any liquid or liquid compound to which the powders can be incorporated, in then adding thereto glue, isinglass, gelatine or other soluble adhesive substance, and in then applying the mixture with a brush. 2nd. The process of gilding which consists in applying, with a brush, to the whitened surface of the object to be gilded or bronzed, the bronzing or gilding powder incorporated with chlorine, alcohol, turpentine, diluted acetic acid or other liquid, or liquid compound to which glue, isinglass, gelatine or other soluble adhesive substance has been added, and in burnishing the said gilt or bronze when dry. 3rd. The process of gilding which consists in applying with a brush, to the whitened surface of the object to be gilded or bronzed, the bronzing or gilding powder incorporated with chlorine, alcohol, turpentine, diluted acetic acid or other liquid, or liquid compound to which glue, isinglass, gelatine or other soluble adhesive substance has been added, and in burnishing the said gilt or bronze when dry and then applying a gold laquer.

### No. 11,618. Process of Depositing Gold from its Aqueous Solutions. (*Procédé pour séparer l'or de ses solutions aqueuses.*)

Edward N. Dickerson, jr., New York (Assignee of William M. Davis, Philadelphia, Pa.), U. S., 7th August, 1880; for 5 years.

**Claim.**—1st. The process of commercially depositing gold from its solution by means of carbon. 2nd. The process of depositing gold from its solution by causing a current of such solution to flow past or through carbon. 3rd. The process of obtaining gold from its solution by bringing said solution in contact with carbon, and thereby depositing the gold upon it and of subsequently obtaining the gold from the carbon by calcination, or other equivalent means.

### No. 11,619. Improvements on Lathes. (*Perfectionnements aux tours à tourner.*)

Lewis H. Broome, (Assignee of James Davis and Foster B. Chidester,) Jersey, N. J., U. S., 7th August, 1880; for 10 years.

**Claim.**—1st. In a turning lathe, or similar structure, constructed and operating to revolve a blank, a revolving saw arranged to move along the line of, and operating to cut away the blank, in combination with a device attached to the head or carried to clamp the blank, while the saw is operating upon it. 2nd. A revolving saw and clamping device, both arranged to move along the line of the blank, in combination with mechanism by which the saw is adjusted relatively to a pattern bar or guide to cut the blank to varying depths. 3rd. A revolving saw in combination with a trimming cutter and a clamping device when all are attached to a head or carrier, and where such saw and cutter move with, and in advance of such head or carrier between the spindles of a lathe. 4th. A revolving saw in combination with a shaping cutter and a clamping device when all are attached to a head or carrier, and when such saw and cutter move with and in the rear of such head or carrier between the spindles of a lathe. 5th. In a turning lathe, a head or carrier arranged to move in the line of the spindles, in combination with an automatically expanding ring to clamp the work near the point where the cutters operate. 6th. An adjustable cutter D in combination with the automatically expanding ring F, when such cutter and ring are attached to a movable carrier of a lathe. 7th. The combination of the expanding ring F, the cutter E pivoted to the movable head or carrier C, and the form or pattern bar L. 8th. The combination in a lathe, of the pivoted cutter E, the adjustable block v, the stops s and the pattern bar L. 9th. In combination with a holder M provided with an aperture for the exit of the shavings, a cutter m and gauge n, both of substantially the reverse shape of the moulding desired. 10th. A cutter holder M hinged upon a rod at the rear of the lathe and capable of longitudinal adjustment thereon, and provided with a cutter m and gauge n beneath an aperture in the holder for the escape of shavings. 11th. The combination in a lathe, of moulding cutters and gauges attached to a holder and detached from the movable cutter head or carrier. 12th. The combination of a moulding cutter holder and a cutter provided with saw teeth, when constructed and arranged to form a moulding and kerf at the same time. 13th. In combination with the gauge n, a cutting spur R to form a smooth vertical cut. 14th. In combination with a cutter holder M, a gauge R operating to limit the depth of the cut of a cutter m.

### No. 11,620. Improvements in Car Brakes. (*Perfectionnements aux freins des chars.*)

John F. Curtice, Fort Wayne, Ind., U. S., 7th August, 1880; for 5 years.

**Claim.**—1st. A composite car brake shoe consisting of but two parts, the one a rigid curved bar of wrought iron, or other suitable metal or material, backed and preferably bound by the other part made of cast iron and united to the former part. 2nd. A composite car brake shoe consisting of but two parts, the one of cast iron, having the other, of wrought iron or other suitable metal or material, imbedded therein in the form of a rigid curved bar provided with one or more perforations, wherein the cast iron is moulded, thereby tying and firmly securing the two parts of the shoe together. 3rd. A composite car brake shoe consisting of but two parts and provided with a face, one part whereof is a rigid curved bar of wrought iron, or other suitable metal or material, and the remainder of said face and shoe of cast iron, backing and preferably bounding said bar and perforating entirely through the same, at one or more points, whereby the proper strength and durability of the shoe is effected and maintained, glazing of its face prevented and the adhesive or frictional brake efficiency thereof increased.

### No. 11,621. Process for Preserving Timber. (*Procédé pour conserver le bois équarri.*)

Waldemar Thilmany, Cleveland, Ohio, U. S., 11th August, 1880; for 5 years.

**Claim.**—The treatment of timber to arrest decay by two successive sepa-

rate impregnations, namely: first, with a solution of sulphate of lead, iron, tin or zinc; and secondly, with a solution of chloride of barium or vice versa.

### No. 11,622. Improvements in Machines for Coiling Springs. (*Perfectionnements aux machines à rouler les ressorts.*)

James Anderson, New York, U. S., 11th August, 1880; for 5 years.

**Claim.** 1st. In combination with the mandrel on which the bar is wound, a worm carried adjustably in slotted bearings formed in frames secured to the heads. 2nd. The shaft F with adjustable sleeve and stop carried thereon. 3rd. The combination with the mandrel B, of the guide E. 4th. The combination with the heads A, A<sup>2</sup>, of the mandrel drawn through same and carried in projecting bearing A<sup>3</sup>.

### No. 11,623. Improvements on Rock Tunneling and an Apparatus Therefor. (*Perfectionnements dans le percement des tunnels dans le roc et aux appareils pour cet objet.*)

Herbert N. Penrice, Hatfield, Eng., 11th August, 1880; for 5 years.

**Claim.** 1st. The construction of apparatus, for rock tunnelling, with a bed frame a, so formed as to lie in the bottom of the leading cavity A, and with rock boring cylinders d mounted on the bed frame a in such manner as to bore holes in directions inclined to it at a small angle, such boring cylinders d also being adjustable on the bed a so that they may remain aligned with the bore holes when the bed frame a, carrying them, is moved forward. 2nd. The modification of the method adopted for forming a tunnel, when the tunnel to be formed is a vertical one.

### No. 11,624. Improvements on Pegging Machines. (*Perfectionnements aux machines à cheviller.*)

George W. Copeland, Malden, (Assignee of Erastus Woodward and Matthias Brock, Boston, Mass., U. S., 11th August, 1880; for 5 years.

**Claim.**—1st. In a pegging machine, the combination of the driven pulley A having a base bearing upon the shaft a, and a movement thereon to and from the cam disk B, and adapted to engage therewith with said cam disk B. 2nd. The combination of the driven pulley A, the cam disk B, operating theawl driving, peg severing and peg driving mechanism, and disengaging mechanism, whereby, after the driving of each peg, the said pulley is disengaged from the said cam disk. 3rd. The combination of the standard c<sub>3</sub> pivoted at c<sub>5</sub> to one end of the yoke S and supporting theawl driving, peg driving, feeding and severing mechanism, with the edge cam b<sub>1</sub>, on the disk B and suitable connecting mechanism, and the spring f<sub>1</sub>, all adapted to operate in effecting the alternate transfers of theawl and peg driver in relation to the foot G. 4th. The combination of the feed wheel b, presser h<sub>3</sub> and the pinion h<sub>1</sub>, all provided with a lateral movement upon the end of the standard c<sub>3</sub>, with a pawl h<sub>2</sub> pivoted to the stationary bracket d, whereby by the movement of the standard in effecting a transfer, the peg strip is fed to the severing mechanism, and a peg to a position in the feed-way under the driver by the movement of the pinion in relation to the pawl. 5th. The combination of the driven pulley A, the clutch lever C, the latch o<sub>1</sub> and the cam n, all arranged to operate in unshipping the driven pulley from the operating disk. 6th. The combination of the driven pulley A adapted to engage with the cam operating theawl and peg driving mechanism, for automatically disengaging said pulley from said operating cam disk, at stated intervals, and a tripping device for disengaging said mechanism from said pulley. 7th. The combination of the cam n<sub>1</sub>, the latch o<sub>1</sub> and the spring o<sub>11</sub>, with the clutch lever C, spring c<sub>3</sub>, catch o<sub>1</sub> tripped by the thumb piece o<sub>6</sub>, and suitable connecting mechanism. 8th. The combination of the pulley A and the clutch lever C provided with a catch, with the cam n and spring o<sub>11</sub>. 9th. The combination of the thumb piece o<sub>6</sub>, the latch o and suitable connecting mechanism for tripping the same. 10th. The combination of the constantly revolving driven pulley A adapted to engage with, and to operate the cam disk B which actuates theawl, the driver, the peg feeding and severing mechanism and transferring devices, with the mechanism for automatically disengaging said pulley from the said disk after the driving of each peg. 11th. The combination of the cam n<sub>1</sub>, the projection e<sub>7</sub> upon the driving bar and suitable connecting mechanism, whereby the said driving bar is slightly lifted before the movement of standard c<sub>3</sub> is effected. 12th. As a means for suspending a pegging machine, the combination of the yoke S adapted to be attached at one end to a suitable support, with said support and with the pegging mechanism supported at its other end. 13th. A suspended pegging machine having the two handles P P<sub>1</sub>, one of which supports the device for operating the peg driving mechanism. 14th. In combination with a power pegging machine, the means for suspending the same in relation to the work support, whereby the machine is provided with universal adjustment in relation to the work support while in operation, consisting of the yoke S adapted to lay hold of the pegging mechanism, its supporting counterbalanced tilting bar S<sub>1</sub>, the supporting rod s<sub>6</sub> and the hanger s<sub>7</sub>. 15th. In a suspended power pegging machine, the combination of the yoke S provided with a swivelling connection in its support, said support and said pegging machine, whereby the said machine is provided with oscillating movement at right angles to the longitudinal axis of the yoke. 16th. The combination of a tilting bar supporting, at one end, a pegging machine, and, at its other end, a counterbalance, with a swinging frame arranged to lay hold of said bar and support the same, whereby the pegging machine is provided with vertical adjustment in relation to its work support. 17th. As a means for providing a power pegging machine with movement to and from its work support, the hanger s<sub>7</sub>, the rod s<sub>6</sub> and the bar s<sub>2</sub>, one end of which bears a counterbalance and the other end of which supports the yoke carrying the pegging machine. 18th. As a means for suspending a power pegging machine, the combination of the swinging hanger s<sub>7</sub>, the rod s<sub>6</sub> having a swivelling connection with said hanger, a balance bar S<sub>2</sub> supported by said rod and arranged to swing upon its support, and a yoke carrying the power pegging machine, having a swivelling connection with the end of the bar s<sub>2</sub>. 19th. As a means of communicating power to a suspended power pegging machine, the combination of the driven pulley t<sub>4</sub> on the shaft t<sub>2</sub>, the intermediary pulley t supported by the hanger S<sub>6</sub>, the movable driven pulley A on the shaft a of the pegging machine, and their connecting belts. 20th. As a means for supporting the peg wood in a suspended power pegging machine, the peg reel S<sub>2</sub> suspended from the tilting bar s<sub>2</sub>.