

liquid product through a grinding mill, evaporating the product thus rendered smooth to the consistency of paste and packing the mass in cans or other vessels.

No. 16,074. Improvements in Plastic Compounds for Roofing. (*Perfectionnements aux compositions plastiques à toitures.*)

Charles Taylor, Joseph James and Enoch James, Montreal, Que., 5th January, 1883; for 5 years.

Claim.—A plastic compound for roofing and other like purposes, composed of actinolite ground to a consistency, in which the fibre is not destroyed, and coal tar or its chemical equivalent in the proportions specified.

No. 16,075. Improvements on Thill and Pole Couplings. (*Perfectionnements aux armons des limonnières et des timons des voitures.*)

Thomas J. Randall, Sing Sing, and George T. Clark, Malone, N. Y., U.S., 5th January, 1883; for 5 years.

Claim.—The shackle iron B provided with screw a and slot c, in combination with a clamping nut for said screw, and a thill iron or pole iron C having a notch or slot d and a hook b.

No. 16,076. Improvements on Ploughs. (*Perfectionnements aux charrues.*)

William A. Dean, Beamsville, Ont., 8th January, 1883; for 5 years.

Claim.—1st. The landside A formed with an upward curvature B at the heel. 2nd. The moldboard G formed with a portion from I to J having an edge parallel to and in the same plane as the lower edge of the landside, the upper portion curving to turn the furrow slice. 3rd. The share H extending from the point of the plow along the lower edge of the mold-board to the recessed portion L, said share having a continuous cutting edge.

No. 16,077. Improvements on Portable Drilling Machines for Oil and Water Wells. (*Perfectionnements aux machines portatives pour forer les puits d'huile et d'eau.*)

Robert M. Downie, Allegheny, Penn., U. S., 8th January, 1883; for 5 years.

Claim.—1st. The combination of the reel f and cog wheels S C and M, with the driving wheel R. 2nd. The combination of the driving wheel R, wheels S, rod T, beam a, spring and tube p.

No. 16,078. Improvements on Bluing Paddles. (*Perfectionnements aux palettes au bleu.*)

Archelaus E. Spencer, Chicago, Ill., U. S., 8th January, 1883; for 5 years.

Claim.—A paddle having a portion of its surface coated with bluing.

No. 16,079. Composition of Matter for Coughs, etc. (*Composition pour les rhumes, etc.*)

Thomas McCarroll and William A. Ellis, Meaford, Ont., 8th January, 1883; for 5 years.

Claim.—A composition of matter composed of wild cherry bark, senega root, squill root, ginger root, ipecacuanha root made into a tincture with diluted spirit, tartarated antimony, sulphate of morphia, extract of liquorice, white sugar, oil of aniseed, chloroform, alcohol and water.

No. 16,080. Improvement on Water Filters. (*Perfectionnement des filtres à eau.*)

John W. Bailey, Boston, Mass., U.S., 8th January, 1883; for 5 years.

Claim.—1st. The body A, disks L, M, K, duct E and tubes C D. 2nd. The tubes C D formed in the body of the filter.

No. 16,081. Improvements on Suppositories. (*Perfectionnements aux suppositoires.*)

Edwin H. Gibbs, New York, N.Y., U.S., 8th January, 1883; for 5 years.

Claim.—1st. A hollow suppository formed of butter of cacao or other analogous substance, and charged with medicine or nutriment. 2nd. The suppository A and stopper B.

No. 16,082. Improvement on Pianos. (*Perfectionnement des pianos.*)

Dennis McCarthy and George R. Davis, St. John, N. B., 8th January, 1883; for 5 years.

Claim.—1st. A glass finger board for pianos and similar musical instruments. 2nd. In a piano or similar musical instrument, a finger board faced or partly faced with glass. 3rd. A finger board faced or partly faced with mirror glass, whereby the board is prevented from being scratched and the instrument improved in appearance. 4th. In a finger board, the backing G so formed as to pack the glass K at its bottom and ends, and also cover the bottom piece I. 5th. The improved finger board, the same consisting of the body D, ends m, m,

bottom f, glass K and backing G. 6th. The improved finger board in combination with the name board C, the name board being so arranged as to cover and conceal the upper edge of the glass of the finger board.

No. 16,083. Improvements in Lasting Tools. (*Perfectionnements aux outils à mettre en forme.*)

Frederick Henderson, New Richmond, Ohio, U. S., 8th January, 1883; for 5 years.

Claim.—The tool having the arm B and jaw C combined with the arm A having the enlarged bearing portion a and finger a, and the jaw D having the pivoted shank d adapted to move in the open recess between the finger and the enlarged portion.

No. 16,084. Improvements on Grinding Machines. (*Perfectionnements aux machines des rémouleurs.*)

Frank M. Simmons, Detroit, Mich., U. S., 8th January, 1883; for 5 years.

Claim.—1st. In a pulley grinding machine, the combination, with an endwise movable shaft carrying a grinding wheel and a shaft arranged to carry, and provided with means for holding a pulley to be ground, of means for traversing the grinding wheel backward and forward automatically across the face of the pulley while grinding the same, and mechanism for adjusting the opposite edges of the face of the pulley alternately towards the grinding wheels. 2nd. In combination with an endwise movable shaft carrying an emery wheel, and a shaft carrying the pulley to be ground, a pair of head blocks carrying the bearings for the latter shaft, these head blocks being independently adjustable towards or from said emery wheel shaft. 3rd. The combination, with the grinding wheel and its endwise movable rotary shaft, and the pulley carrying shaft, of the shifting and reversing mechanism for changing the endwise motion of said grinding wheel shaft, a shipping lever for such mechanism and devices for automatically shifting said shipping lever. 4th. In combination with a shaft arranged to carry, and provided with means for holding a pulley to be ground, an endwise movable shaft carrying a grinding wheel, a sliding bar provided with means for engaging and moving said grinding wheel shaft, a nut and screw shaft which moves said sliding bar, a pair of cog-wheels on said screw shaft, an additional shaft having two loose pinions, one of which engages directly with one of said cog-wheels, and the other of which connects with the other cog-wheel through an intermediate pinion, a clutch arranged to lock either of said loose pinions to its shaft, a lever which moves said clutch, a sliding bar pivotally connected with said lever and arranged to shift the same, and a rack pinion and topping weight arranged to reverse the motion of the latter bar.

No. 16,085. Improvements in Horse Shoe Nail Machines. (*Perfectionnements aux machines à clou à cheval.*)

William Werts, Philadelphia, Penn., U. S., 10th January, 1883; for 5 years.

Claim.—1st. The combination of the following instrumentalities namely: first, a concave anvil; second, a cranked shaft; third, an arm carried by the crank pin of the shaft and provided near one end with a forging roller; and fourth, a cranked rock-shaft, free to oscillate and having a crank pin carrying the opposite end of the said arm. 2nd. The combination of the anvil, the cranked shaft 3, the arm 5 carrying the forging roller, the cranked rock-shaft 9 connected to the said arm, and the vertically adjustable bearings adapted to the said shaft 9. 3rd. The combination of the anvil, the cranked shaft 3, the arm 5, the crank shaft 9, dies 23 and 25 and intervening mechanism, whereby the dies are operated from the said shaft 9. 4th. The combination of the rock shaft 9 and its arm 14 and 21, the guided reciprocating rods 18 and 18 adjustably connected to the said arms, the dies 23 and 25 and the above described knee joint connections of the rods with the dies. 5th. The combination of the reciprocating bars 18 18, the dies 23 and 25, the knee joint arm 21 and 22 and connected to the dies and to the bars, and the adjustable pin 28 to which the arm 21 is connected. 6th. The combination of the reciprocating rods 18, the dies 23 and 25, the knee-joint rods 21 and 22, and the adjustable studs 28 to which said rods 21 are connected. 7th. The combination of the anvil 30 having a concave face 32, the arm 5 and its forging roller, and the reciprocating dies 23 and 25 having undersides conforming to the face of the anvil, with the guides 26 and the adjustable guides 27. 8th. The combination of the anvil, the reciprocating dies 23 and 25, the pivoted arms 39 and 40 each carrying a knife 38 with automatic mechanism, whereby the said arms are at intervals elevated within range of the dies so as to be operated thereby. 9th. The combination of the anvil and reciprocated dies 23 and 25 and the knife carrying arms 39 and 40, with the lever 43, the intermittently rotated disk 50, the springs 56 and 57 and mechanism whereby the lever 43 is relieved at intervals from the pressure of the said spring 56. 10th. The combination of the lever 43 carrying the knife arms 39 and 40, the springs 56 and 57, the intermittently rotated shaft 51 and its notched disk 50, the shaft 60 geared to the said shaft 51 and having a disk 59 with pins 55. 11th. The combination of the following elements namely: first, the anvil reciprocated dies 23 and 25, and arm 5 carrying the forging roller; second, a guide plate 61 and mechanism for reciprocating the same; third, one or more pairs of cam levers for gripping the nail rod and releasing the same; and fourth, a device for permitting the same to be fed under friction. 12th. The combination of the guide plate 61, its cam levers and lug 65 with an intermittently rotated shaft carrying a disk or plate having projections 64, and with springs 63. 13th. The combination, with a horse shoe nail machine, of a heater through which the nail rod passes before reaching the forming mechanism. 14th. In a horse shoe nail machine of the character herein specified, a nail rod heater having an outer casing 72, lining 73 and pipes 74, adapted and arranged to conduct the fuel for consumption to the interior of the heater.