

tion of a chuck having adjustable jaws adapted to be clamped upon the valve casing, and a revolving spindle carrying a cutting tool, substantially as set forth. 2nd. In a machine for dressing valve seats, the combination of a chuck having radially adjustable jaws screw-threaded on their inner and outer sides, a tubular standard mounted upon the said chuck, a screw-threaded sleeve mounted on said standard, and a spindle journaled in the latter and having a cutting tool at its lower end, substantially as set forth. 3rd. In a machine for dressing valve seats, the combination, with a chuck having radially adjustable jaws screw-threaded upon their inner and outer sides, of a revolving spindle having a handle at its upper end, a cutting tool mounted detachably at the lower end of said spindle, and mechanism for feeding the latter in a forward or downward direction, substantially as set forth. 4th. In a machine for reseating valves, the combination of a chuck having radially adjustable jaws screw-threaded at their inner and outer ends, a tubular standard upon the upper side of said chuck, sleeve mounted on said standard and having a handle at its upper end, a stem or spindle having a handle at its upper end, and a cutting tool mounted detachably at its lower end of said spindle, substantially as and for the purpose set forth. 5th. In a machine for dressing valve seats, the chuck having radially adjustable jaws to engage the valve casing, the revolving spindle carrying the cutting tool, and the feeding mechanism to feed the spindle in a forward or downward direction, as set forth. 6th. In a machine of the class described, the combination of a chuck, the back plate of which has an upwardly extending exteriorly screw-threaded tube, a spindle journaled in said tube and extending through the chuck, a hand wheel mounted upon the said spindle, and a tube engaging a shoulder near the upper end of the spindle and having an interiorly threaded portion engaging the exteriorly threaded tube upon which it is adjustably mounted, substantially as set forth. 7th. In a machine of the class described, the combination of a chuck having an upwardly extending exteriorly screw-threaded tube, a spindle mounted revolvably in said tube and having a hand wheel at its upper end, an adjustable tube having a hand wheel at its upper end engaging a shoulder formed upon the spindle below the hand wheel of the latter, said adjusting tube being provided with an interiorly threaded portion engaging the exteriorly threaded tube of the chuck, and a tightening nut mounted upon a tapering exteriorly threaded and longitudinally slotted portion of the adjusting tube, substantially as and for the purpose set forth. 8th. In a machine of the class described, the combination with the chuck having an upwardly extending tube, of a spindle mounted revolvably in the said tube and having a hand wheel, the rim of which is provided with recesses, and means for adjusting the said spindle longitudinally, substantially as and for the purpose set forth. 9th. In a machine of the class described, the combination of a chuck having an upwardly extending tube, a spindle mounted revolvably in said tube and having a shoulder near its upper end, the adjusting tube mounted exteriorly upon the tube extending from the chuck, and having a hand wheel engaging the shoulder of the spindle, a hand wheel mounted upon the latter above the hand wheel of the adjusting tube, and a nut mounted upon the spindle above the hand wheel of the latter and adapted to force the said hand wheel in a downward direction to take up slack caused by wear upon the spindle, substantially as therein shown and specified. 10th. In a machine of the class described, the combination with the chuck having a revoluble and longitudinally adjustable spindle provided at its lower end with a screw-threaded stem, of an extension rod provided at one end with a threaded recess to engage the said stem, and at its opposite end with a screw-threaded stem, said extension rod being provided with a transverse perforation, substantially as and for the purpose set forth. 11th. In a machine of the class described, the combination with a chuck having a revoluble and longitudinally adjustable spindle extending between the radially adjustable jaws of said chuck, of an auxiliary chuck adapted to be mounted detachably upon the lower end of the said spindle and having radially adjustable jaws, the lower ends of which are screw-threaded and their inner and outer sides, substantially as and for the purpose set forth. 12th. The combination with the chuck having a revoluble and longitudinally adjustable spindle, of an auxiliary chuck mounted detachably upon the lower end of said spindle, and a casing adapted to be engaged by and firmly connected with the main chuck, said casing having a conical or tapering portion provided with a longitudinal slot or opening, and a cutter mounted adjustably in the said slot, substantially as and for the purpose set forth. 13th. In a machine of the class described, the herein described disk dressing attachment, the same comprising a casing having a conical or tapering portion provided with an exterior rib adapted to be mounted in a vise, a longitudinal slot or side opening and a cutter mounted adjustably in the said slot, substantially as set forth. 14th. The disk dressing attachment, comprising a casing having a tapering portion provided with a slot or side opening, and a seat formed adjacent to the said slot, in combination with the cutter having transverse slots to receive screws by means of which it is mounted upon the said seat, and screws inserted into the outer side of said seat and having heads bearing against the outer edge of the said cutter, substantially as and for the purpose set forth. 15th. In a machine of the class described, the combination of a chuck having a revoluble and longitudinally adjustable spindle provided with a hand wheel and means for feeding and longitudinally adjusting said spindle, an auxiliary clutch mounted detachably upon the lower end of said spindle, a casing interiorly screw-threaded at its upper edge to be engaged by the radially adjustable jaws of the main chuck, and having a tapering or conical portion at its lower end provided with a longitudinal slot or side opening and a cutter mounted adjustably in the said slot, substantially as and for the purpose set forth. 16th. In a machine of the class described, the combination with a chuck having a revoluble and longitudinally adjustable spindle provided with a screw-threaded stem at its lower end and means for feeding and adjusting the said spindle, of a cutter adapted to be mounted detachably upon said spindle, said cutter consisting of an oblong bar having a screw-threaded recess to engage said spindle and provided on opposite sides of said recess with oppositely inclined teeth, substantially as and for the purpose set forth. 17th. The combination with the herein described machine, comprising essentially a chuck having a

revoluble and longitudinally adjustable spindle provided with a screw-threaded stem at its lower end, of a cutting tool consisting of an oblong bar having a screw-threaded recess and provided on opposite sides of said recess with longitudinally parallel and oppositely inclined teeth, substantially as herein described and for the purpose set forth.

No. 37,520. Cultivator. (*Scarificateur.*)

Camillio Sivori Norcross and Thomas West, both of Walnut Grove, Illinois, U.S.A., 2nd October, 1891: 5 years.

Claim.—1st. In a garden cultivator, the combination, of the head-plate A, having the handle socket and the series of openings, A², the tines having the rear end projections, C¹, the bearing-plate, D, having its ends, D¹, bent down, with their extremities extending under the head-plate, and having its front edge, D², bent down and formed with the recesses, D³, in which the tines fit, and securing bolts passing through the head-plate and bearing-plate, substantially as set forth. 2nd. The combination, of the head-plate, having the handle socket and formed with the longitudinal slots, A¹, and the rear openings, A², the tines having the rear pivot-projections, C¹, the adjustable bearing-plate, D, having its ends, D¹, bent down and under the head-plate, having its front edge bent down and formed with the recesses, D³, and formed with the bolt-holes, d, and the bolts, E, having the nuts on their threaded upper ends, substantially as set forth.

No. 37,521. Clothes Line. (*Corde de séchage.*)

Frederick S. McKay, Hatley, Quebec, Canada, 2nd October, 1891: 5 years.

Claim.—1st. In combination with a clothes line having two strands, a twister in the form of a wheel, having four spokes, each spoke perforated to receive a strand of the line, one spoke being much heavier at its outer end than the others, as and for the purposes described. 2nd. In combination with a clothes line having two strands, a wheel shaped twister with four spokes having perforations weighted by one spoke being heavier than the others, and a swivel operating to relieve the twists in the line, as and for the purposes described. 3rd. In a clothes line, the combination of a line having two strands fixed at one end to a suitable support, the other end passing over a pulley and having attached thereto a weight to keep it taut, and a twister having notched perforations such as herein shown and described to receive a strand of the line, one part being much heavier at its outer end than the others for the purpose of weighting, as and for the purpose described. 4th. In a pinless clothes line, the laying together of the two strands to form twists between which the clothes are securely held upon the line, as set forth. 5th. The storing of these twists in the upper double strand of the line to be transferred by the twister to the lower double strands of the line when putting the clothes on, and the retransferring of these twists back from the lower to the upper double strands of the line when the clothes are taken off, substantially as set forth.

No. 37,522. Piano Case. (*Boîte de piano.*)

Jeronimus Reimers, Toronto, Ontario, Canada, 2nd October, 1891: 5 years.

Claim.—1st. In a piano case, the side pieces of the back section, plates secured to the inner sides of said side pieces, each of said plates fitted with a threaded aperture in combination with the side pieces of the front section, openings through each of the side pieces of said front section, said openings corresponding in size and location to the threaded apertures in the metallic plates secured to the side pieces of the back section, and screws passing through said openings and entering said threaded apertures rigidly holding the front and rear sections of the piano case together, substantially as described. 2nd. In a piano case, the side pieces of the back section plates secured to the inner sides of said side pieces, each of said plates fitted with a threaded aperture, guide blocks on the inner side of said side pieces, in combination with the side pieces of the front section, openings through each of the side pieces of said front section, said openings corresponding in size and location to the threaded apertures in the metallic plates secured to the side pieces of the back section, screws passing through said openings and entering said threaded apertures, and grooves or recesses on the outer side of the side pieces of the front section to receive said guide blocks, substantially as described. 3rd. A piano case consisting of the combination of a front section and a back section made independent of and separable from each other, and means for rigidly uniting said sections, substantially as described. 4th. In a piano case, the combination of a front section having two side pieces, and a back section having two side pieces which overlap the side pieces of the front section, and means for rigidly uniting said sections, substantially as described.

No. 37,523. Manufacture of Gas and Apparatus to be used Therefor. (*Fabrication du gaz et appareil pour cet objet.*)

John Henry Williams Stringfellow, London, England, 3rd October, 1891: 5 years.

Claim.—1st. The process of manufacturing gas, as above described, which consists in causing atmospheric air to pass firstly through or in contact with liquid hydro-carbon, and secondly, through or in contact with water, and without the application of heat, as and for the purposes set forth. 2nd. The process of manufacturing gas, as above described, which consists in the saturation of a hydro-carbon charged gaseous fluid with vapour of water at the normal temperature of the atmosphere, as and for the purpose set forth. 3rd. The