No. 26,393. Die for Drawing Cartridges and other Blanks from metal. (*Etampe pour Laminer les Cartouches et autres ébauches en Métal.*)

Rollin White, Lowell, Mass., U.S., 5th April, 1887; 5 years.

Claim.—1st. The combination of a die, composed of two or more superimposed plates, contained in one or more die-holders, one or more of said die-holders having a die-chamber larger than the plate of said die-chamber, and an elastic packing interposed between said die and the said die-chamber, substantially as shown and described. 2nd. The combination of a die, composed of two or more superimposed plates contained in one or more die-holders, one or more of said die-holders having a die-chamber larger than the plate of said die contained in said die chamber, and an elastic packing interposed between said die and the sides of said chamber, as and for the purpose specified. 3rd. The combination of a die, a die-holder having a die-chamber larger than said die, an elastic packing surrounding said die, a metallic ring surrounding said packing, and two or more screws thrusting against said ring, as and for the purpose specified. 4th. A die, composed of two or more superimposed plates, in two or more die-holders, all of said die-holders being provided with die-chambers somewhat larger than the plates contained in said die-holders, so that all the plates composing the die may have a slight lateral motion for the purpose of adjusting themselves to the work, substantially as shown and described.

No. 26,394. Chill for Small Castings.

(*Coquille pour Coulage de petites Pièces.*)

Candide W. Croteau, Longueuil, Que., 5th April, 1887; 5 years.

Claim.—1st. The chill or "print" A, pressed when in the mould against the rear face of the back plate, and having formed in it recesses to receive tapered bolts with projecting heads forming holes in such back plate all as herein set forth. 2nd. In combination with the chill or "print" A, with outwardly-turned perforations a, a, the tapered bolts B, B, with countersunk flat heads B^1, B^1, substantially as and for the purpose set forth.

No. 26,395. Puzzle. (*Jeu de Patience.*)

Henry Oellrich, Detroit, Mich., U.S., 5th April, 1887; 5 years.

Claim.—In a puzzle, the combination of the leaves A, B, the straps a. a^1, b, b^1, and the folding papers C, C^1, attached to opposite sides of the straps b, b^1, substantially as described.

No. 26,396. Timber Roll.

(*Rouleau à Bois de Charpente.*)

Robert M. Webb, San Francisco, Cal., U.S., 5th April, 1887; 5 years.

Claim.—1st. The anti-friction rolls C and bent adjustable standards D, in combination with the frame B and B^1 and roll A, for the purpose of holding the timber over the roll and relieving the friction, constructed and operated substantially as and for the purposes set forth 2nd. The anti-friction rolls C and standards D, with set-screws E, in combination with the frame B and B^1 and the pivot or turn-table F and G, for the purpose of turning and guiding the timber while avoiding friction, constructed and operated substantially as and for the purposes set forth.

No. 26,397. Machine for Grinding Mower Knives. (*Machine à rémouler des couteaux des faucheuses*)

The Mower Knife Grinder Company, New York, (Assignee of Rufus Dutton, Yonkers), N.Y., U.S., 5th April, 1887; 5 years.

Claim.—1st. In a machine for grinding mowing machine knives, thecombination, substantially as hereinbefore described, of a knife clamp, a grinding wheel, means for reciprocating either of them for presenting to the grinding surface a knife edge progressively from the bottom of a V to the top of an edge, and a clamp-controlling spring which exerts its minimum force during the presentation by the clamp of the inner end of a knife edge a grinding surface, and a greater force when presenting the outer end or tip of a knife edge to said surface, and is coupled to the reciprocating mechanism and graduated in its force thereby, substantially as described, whereby the pressure of a knife held by said clamp is increased progressively against the grinding surface while grinding from the bottom of a V to the tip of a knife edge. 2nd. In a machine for grinding mowing machine knives, the combination, substantially as hereinbefore described, of a knife clamp, a grinding wheel mounted upon a reciprocating arm or lever, a clamp-controlling spring coupled to said wheel arm and varied in its force while pressing a knife against the grinding surface, as a result of the various positions assumed by said wheel arm, during its reciprocatory movement. 3rd. In a mower knife grinding machine, the combination, substantially as hereinbefore described, of a grinding wheel mounted at one end of a pivoted arm, a knife clamp frame pivoted to swing toward and from the grinding face of said wheel, arms at the foot of said frame, a pivoted lever bearing downward npon said arms, and a clamp-controlling spring coupled to the opposite end of said lever, and also to said wheel arm between its pivot and the wheel, whereby as the result of vertically moving said wheel the pressure of said spring applied at the rear of the clamp frame is progressively increased. 4th. In a mower knife grinding machine, the combination, substantially as hereinbefore described, of the grinding wheel and the knife clamp pivoted with relation to each other, substantially as described, for enabling the presentation of a knife held by said clamp to either of the edges of the face of the grinding wheel, and adjustable stops for variably limiting the pivotal movements of said wheel and clamp, and thereby correspondingly varying their angular relations, for operating upon the section of a mower knife which has been irregularly ground. 5th. In a mower knife grinder, the knife clamp embodying the combination, substantially as described, of the horizontal bar provided with legs pivoted at their lower ends, and having an upper surface affording a longitudinal seat for the rear edge of a knife bar, and having a centrally located bolt affording a shoulder for engaging witd the outer edge of a knife bar, and two pairs of independent vertical clamping jaws located at opposite sides of said bolt, whereby the central portion of a mower knife may be securely confined by the use of either or both of said pairs of jaws, and also whereby either of the pairs of jaws and said bolt shoulder can be relied upon for securely holding either end of a knife while grinding the end sections thereof. 6th. The combination, substantially as hereinbefore described, of the grinding wheel, the knife clamp and its frame, the latter being pivoted at its lower end to a base plate, a horizontal bar on said frame serving as a seat for the rear edge of a mower knife bar, a rigid clamping jaw at each end of said bar, a pair of movable jaws each provided with a separate clamping bolt, forwardly projecting arms at the base of said clamp frame, and a spring for forcing said arms downward and thereby forcing the knife clamp toward the grinding face of the wheel. 7th. In a mower knife grinder, the combination, with a grinding wheel internally chambered for the reception of water, of a radial water duct having an external feeding aperture, and an internal exit located within the wheel, substantially as described, whereby water can be readily supplied to the chamber, and then securely retained therein without closing said duct regardless of variations in the position of said wheel and whether the same be in or out of use.

No. 26,398. Musical Instrument.

(*Instrument de musique.*

Robert F. Flemming, jr., and Anthony Lux, jr., Melrose, Mass, U. S., 5th April, 1887; 5 years.

Claim.—1st. A stringed musical instument, the body of which is provided with a parchment or vellum head, perforated at or near the point where the strings are operated with a cluster of circular openings to cause them to vibrate. 2nd. A stringed musical instrument, the body of which is provided with two removable heads, one of which is provided with a cluster of circular openings, and a series of strings within said body, corresponding in number and pitch with the strings upon the outside of said instrument. 3rd. A stringed musical instrument, the body of which is provided with a perforated vellum or parchment head, and a reverberant mounted upon a spring or yielding arm, and located beneath the perforated portion of said head, to regulate the amount of sound to be emitted therefrom. 4th. In a musical instrument, the combination of two removable vellum or parchment heads, one or more headed rods or posts interposed between said heads, and mounted in bearings with their heads in contact with the front or upper head, and a spring interposed between the head of said rod and its bearing, to maintain said rod in contact with said front or upper head. 5th. A stringed musical instrument, the body of which is provided with two vellum or parchment heads, a series of strings located within said body, and corresponding in number and pitch with the strings outside of said body, and a series of pins interposed between said inside strings and one of the heads, to transmit the vibrations of said head to said inside strings. 6th. In a stringed musical instrument, a mute or damper consisting of a support covered with a non-resonant material pivoted to the bridge of the instrument, and connected to a lever in such a manner that such support may be oscillated about its axis by said lever, and brought into contact with the strings to deaden and soften their tone. 7th. In a stringed musical instrument, a reverberant or sound-regulator consisting of a ring, having clamped thereon a disk of thin parchment or vellum, and mounted upon a spring arm beneath the openings for the emission of the sound. 8th. In a stringed musical instrument, provided with a series of strings within the interior of the body thereof, a twanging device consisting of a rod mounted in suitable bearings, in which it is adapted to be oscillated or reciprocated by means of a milled head located outside of said body, and having mounted thereon an arm provided with a cam portion by which any desired string may be snapped. 9th. In a stringed musical instrument, the combination of the strings and the tail-piece thereof, which a series of independent and detachable hooked wires interposed between said strings and said tail-piece. 10th. In a stringed musical instument, a series of strings secured in a fixed position to one of the ends of the body thereof, passing through said end into the interior of the body where they are stretched over suitable bridges, and passing out at the opposite end to suitable tuning-pegs mounted in a suitable arm projecting from the lower end of the instrument. 11th. In a stringed musical instrument, the combination of the sides a, a provided with the slots g^1, g^1, the vellum head A or A^1, the band f, the pull-downs g, g, the bolts g^2, g^2 and the nuts g^3, g^3, all substantially as and for the purposes described. 12th. In a stringed musical instrument, the combination of the sides a, a provided with the slots g^1, g^1, the vellum head A or A^1, the metal band f provided with the slots f^1, f^4 and f^5, and the stud or bolt f^2, the bolts g^2, g^2, the nuts f^3, g^3 and g^3, and a series of pull-downs g, g, all substantially as and for the purposes described. 13th. In a stringed musical instrument, the combination of the sides a, a, the vellum head A and A^1, the metal band f provided with the slot $f f^1$ at one end, and the bolt f^2 at the other, and the nut f^3, all substantially as and for the purposes described. 14th. In a stringed musical instrument, the combination of the vellum head A^1, the cross-brace c, the pins n^4, n^4, the vertically moving bridges n^3, n^3, the springs n^5, n^5 and the strings n, n, all substantially as and for the purposes described. 15th. In a stringed musical instrument, the combination of the sides a, a, provided with the stiffening-pieces r^2 and r^4, the neck B povided with the projection r, the extension r^3 secured to said projection and the screws l^1 and r^5, all substantially as and for the purposes described. 16th. In a stringed musical instrument, the combination of the sides a, a, the vellum head A or A^1, and the series of longitudinal and cross-braces c, c, all substantially as and for the purposes described. 17th. In a stringed musical instrument, the combination of a series of strings n, n within the body thereof, the rod p provided with the stop rod q and the picker-arm p^3, and mounted in suitable bearings so that it may be either oscillated or reciprocated therein, and the hook q^1 secured to a fixed support, all substantially as and for the purposes described. 18th. In a stringed musical instrument, a bridge composed of a wooden base portion and a metal strip, the upper edge of which is provided with suitable notches to receive the strings.