

Claim.—1st. The herein described grindstone for grinding mowing machine knives, consisting of a circular disk having its edges beveled off, and a groove or slot on its face, all substantially as and for the purposes set forth. 2nd. The combination, in a grindstone, of the circular disks A, A', having their edges beveled off, as shown, and the plate B of smaller diameter than said stones, said plate separating said stones and forming a space F between them, substantially as and for the purposes set forth. 3rd. The combination, in a grindstone, of the stones A, A' having beveled edges, plate B of smaller diameter, and separating said stones and plate U, partly filling the space F between the stones, all substantially as and for the purposes set forth.

No. 24,531. Mechanism for Transmitting Power. (*Mécanisme de Transmission de la Force.*)

Wallace H. Dodge, Mishawaka, Ind., U.S., 19th July, 1886; 5 years.

Claim.—1st. The pulleys A, B, each provided with one or more peripheral grooves C, the endless belt or rope D, and the wheel E, combined with a wheeled carriage F for said wheel, and a rectilinear track or guide way G for the same, said carriage being impelled away from said pulleys by a constantly acting force, substantially as set forth. 2nd. The pulleys A, B, the rope D placed thereon, and the idler E, combined with the carriage F, adjustable to vary the angular position of the wheel E, to adapt it to the number of grooves employed on the pulleys A, B, and a yielding device to impel said carriage away from said pulleys and keep said rope always taut. 3rd. The combination of the pulleys A, B, the rope D placed thereon, the idler E mounted on the carriage F, adapted to move in a right line only, a track or guide way G for said carriage, and an impelling weight attached to said carriage. 4th. The pulleys A, B, rope D placed thereon, the inclined idler E mounted upon a carriage F impelled by gravity, and a rectilinear track or guide way G for said carriage, combined with one or more guide pulleys I, whereby the angular position of the carriage F and track G as to the pulleys A, B may be changed as desired. 5th. In an endless rope for transmitting power, the herein described mode of splicing the ends, that is to say, first, by securing the ends of the strands by whipping or short splicing, second, by covering the spliced portion with a sleeve of suitable hide or leather, third, by fastening the ends of said sleeve to the strands individually, substantially as set forth. 6th. A rope, having its end strands secured by whipping or short splicing, combined with a covering shield of suitable material, such as hide, having its ends slit to constitute thongs, and said thongs wrapped around the strands individually, whereby the splicing sleeve is joined to the rope by wrapping the strands separately at a distance from their ends.

No. 24,532. Churn Power. (*Moteur de Baratte.*)

William Bloedow, Killaloe, Ont., 19th July, 1886; 5 years.

Claim.—The combination, with the base A and lever H, provided with adjustable weight K, of post B having a boxed head B', bolt F and coiled spring U, as set forth.

No. 24,533. Bevel. (*Sauterelle.*)

Charles M. Fries, John M. Todd and Edgar W. Wilson, Minneapolis, Minn., U.S., 20th July, 1886; 5 years.

Claim.—The combination, with the stock of a bevel-square, of a spur-wheel adapted to be turned by the bevel-blade, a pinion in mesh with such spur-wheel and of one-fourth its diameter, an indicator operated by the pinion pivot and a graduated scale for indicating the angle of the blade and stock, substantially as set forth.

No. 24,534. Manufacture of Starch.

(*Fabrication de l'Amidon*)

William T. Jebb, Buffalo (Assignee of John C. Schuman, Akron), N.Y., U.S., 20th July, 1886; 5 years.

Claim.—1st. The herein described method of extracting starch from grain, which consists in first detaching and separating the starch meal from the coarse offal, then steeping the separated starch meal, then grinding the steeped starch meal, and then separating the remaining impurities from the starch, substantially as set forth. 2nd. The herein described method of extracting starch from grain, which consists in first steeping the grain, then reducing the grain, then separating the starch meal from the coarse offal, then steeping the separated starch meal, then grinding the steeped starch meal, and then separating the remaining impurities from the starch, substantially as set forth. 3rd. The herein described method of extracting starch from grain, which consists in first detaching the hulls and germs from the starchy portions by whipping or beating, then separating the starch meal from the hulls and germs, then steeping the separated starch meal, then grinding the steeped starch meal and then separating the remaining impurities from the starch, substantially as set forth. 4th. The herein described method of extracting starch from grain, which consists in first steeping the grain, then detaching the hulls and germs from the starchy portions by whipping or beating, then separating the starch meal from the hulls and germs, then steeping the separated starch meal, then grinding the steeped starch meal, and then separating the remaining impurities from the starch, substantially as set forth.

No. 24,535. Method of and Apparatus for Lighting Railway Trains and Tram Cars by Gas. (*Mode d'Eclairage au Gaz des Chars de Chemins de Fer et de Tramway et Appareil pour cet objet.*)

William B. Rickman, London, Eng., 20th July, 1886; 5 years.

Claim.—1st. The method herein described of lighting railway carriages or tram cars by gas, including the preparation and compression of rich oil gas, its supply in a compressed condition to separate

reservoirs on the carriage of a train, and the regulation of its pressure in passing from these reservoirs on the carriages of a train, and the regulations of its pressure in passing from these reservoirs to the lamps of the carriage. 2nd. The apparatus, substantially as herein described, for preparing, storing and compressing gas for the supply of railway trains or tram-cars, including retorts, in combination with coolers, purifiers, gasometer pump and high pressure reservoir. 3rd. The apparatus, substantially as herein described, for supplying gas to railway trains or tram-cars, including the high pressure mains with their branches, valves and couplings to the reservoirs on the separate carriages. 4th. The apparatus, substantially as herein described, for regulated combustion of gas in a railway carriage, including the regulator on each carriage in combination with the gas brackets and branch pipes therefrom and the lamps. 5th. In combination with the gas pipe from the regulator on each carriage, the pneumatic diaphragm valve and an air pressure pipe coupled from carriage to carriage, arranged and operating substantially as herein described.

No. 24,536. Method of and Apparatus for Lighting by Gas Floating and Detached Lights, such as Buoys, Lightships, Pile Lights, etc. (*Mode d'Eclairage au Gaz des Phares Flottants et Détachés, tel que Bouées, Bâtiments-Balises, Pharillons, etc.*)

William B. Rickman, London, Eng., 20th July, 1886; 5 years.

Claim.—1st. In an apparatus for producing and compressing oil gas for floating and detached lights, the combination of the retort furnace B, oil supply pump C, cooler or condenser E, washer or purifier E, gasometer H, compressing pump I, and high pressure reservoir M, arranged and operating substantially as herein described. 2nd. In apparatus for supplying illuminating gas to floating and detached lights, and for regulating the combustion thereof, the combination of the receptacle R, for compressed gas, the supply pipes n, n', regulator N, supply pipe p, and burner T, arranged and operating substantially as herein described.

No. 24,537. Tanning Process.

(*Procédé de Tannage.*)

John W. Fries, Salem, N.C., U.S., 20th July, 1886; 5 years.

Claim.—1st. The method of tanning leather, which consists in subjecting the hide to the action of a bath containing carbonate of iron. 2nd. The process of tanning or finishing hides for the production of leather, which consists, first, in liming and unhairing the hides, then subjecting them to a bath or solution containing carbonate of iron, next subjecting them to a solution of copperas and common salt dissolved in water, and finally treating them with cotton seed oil, or other oil or fatty substance, capable of readily entering the pores of the leather. 3rd. In a tanning and finishing process, the steps which consists in first liming and unhairing the hides, in any usual or convenient manner, second, subjecting the hides to a bath of water containing carbonate of iron in solution, and, third, removing the hides from the carbonate solution and subjecting them to the action of a bath of copperas and common salt dissolved in water, substantially as set forth. 4th. The herein described process of tanning and finishing hides, consisting in first liming and unhairing the hides in any usual or convenient manner, second, subjecting the hides to a bath of water containing carbonate of iron in solution, third, removing them from the carbonate solution and subjecting them to the action of a bath of copperas and common salt dissolved in water, fourth, bringing them under the action of the atmosphere, whereby the ferrous oxide contained in the pores of the hide is changed to a ferric oxide, and, fifth, treating the leather thus formed with cotton seed oil or other fatty substance, substantially as and for the purpose set forth. 5th. The step in the treatment of hides, which have been previously treated in solutions, containing respectively carbonate of iron and copperas, and common salt dissolved in water, which consists in applying to them a mixture of castor oil and alcohol. 6th. The method of treating leather after treatment in solutions containing respectively carbonate of iron and copperas and salt, which consists in applying to said hides while they are wet with the last solution a mixture of castor oil and alcohol.

No. 24,538. Vehicle Spring. (*Ressort de Voiture.*)

Emil C. Tecktonius, and the Mitchell & Lewis Company, Racine, Wis., U.S., 30th July, 1886; 5 years.

Claim.—1st. The combination, with a vehicle body of crossed elliptical springs, one end of each spring being secured to the under side of the body near its edge, the two springs crossing each other under the centre of the body and being there clipped to the pivoted leaves of a depending bracket, substantially as described. 2nd. The combination, with a vehicle body, of the crossed elliptical springs B, B', and the depending bracket C with lugs a, a', a'', and the leaves b, b', pivoted on bolt d passing through said lugs, and the said leaves extending in opposite directions, and each clipped to one of the springs B on opposite sides of the centre of the bracket, as shown and described.

No. 24,539. Sash Fastener. (*Irrête-Croisée.*)

George F. Shaw, Francis L. Babcock and Philander S. Young, Dedham, Mass., U.S., 20th July, 1886; 5 years.

Claim.—1st. In a sash fastener, the combination, with an upright standard F, adapted to be fastened rigidly on one of two meeting rails, of a stand D adapted to be secured rigidly on the other rail, and composed of two parts a and b joined by the cross-piece c, one or both of said standard and cross-piece being bevelled or inclined, as specified, and said standard and stand being so constructed with reference to each other that when they co-act the standard is between said parts a and b, and inclosed by them and the cross-piece c, sub-