

**Claim.**—1st. In a pulverizing machine, the combination, with a disk provided with openings around the periphery thereof, of an adjusting plate provided with openings corresponding in peripheral alignment with the openings in the disk. 3nd. In a pulverizing machine, the combination, with a disk provided with openings around the periphery thereof, of an adjusting plate provided with openings corresponding in peripheral alignment with the openings in the disk, and means for adjusting the plate with respect to the disk.

**No. 14,595. Improvements on Fertilizing Compounds.** (*Perfectionnements aux engrais artificiels.*)

Edwin J. Houser, Fort Valley, Ga., U. S., 15th April, 1882; for 5 years.

**Claim.**—1st. The described composition of matter for use as a fertilizer, composed of cotton seed meal, dissolved bone and German potash salts. 2nd. Fertilizing compounds of which the base or principal ingredient is cotton seed meal.

**No. 14,596. Improvements on Machines for Picking Stones and excavating Earth.** (*Perfectionnements aux machines à enlever les pierres et creuser.*)

Seth T. Gerow, Picton, Ont., 15th April, 1883; for 5 years.

**Claim.**—1st. The combination of an endless lattice apron having picker teeth carried on sprocket wheels mounted upon an axle on wheels and a frame carried by said axle, the rear end of which is held at an adjustable distance from the ground, and carrying long rake gathering teeth into which the picker teeth engage, the forward end having an open bar bottomed chute for the delivery of the collected material into a suitable receptacle. 2nd. The combination, with a stone picker, of a separate collecting and draft attachment consisting of a receptacle mounted upon an axle on wheels, and having a hinged tailboard and lever dumping arrangement, the whole being easily attached or detached.

**No. 14,597. Improvements in Apparatus for Separating Fluids of Different Specific Gravities.** (*Perfectionnements aux appareils à séparer les fluides de pesanteur spécifique différente.*)

Gustaf de Laval, Stockholm, Sweden, 15th April, 1882; for 10 years.

**Claim.**—In a centrifugal fluid separator, the combination of a hollow centrifugal chamber adapted to rotate about a vertical axis, and having an upward prolongation or neck, a supply reservoir for fluid supported in said prolongation or neck, and a blade extending from said supply-reservoir into and nearly to the periphery of said chamber. 2nd. The combination, with the hollow centrifugal chamber B, having the prolongation or neck B<sub>1</sub>, of the central reservoir G, the blade J and the inlet pipe I. 3rd. The combination of the chamber B and its neck or prolongation B<sub>1</sub>, with discharge openings f f', the supply reservoir G with its blade J and supply tube or pipe I, the annular receptacles E E' and the pipe F.

**No. 14,598. Improvements in Methods and Apparatus for Sewing and Trimming Knitted Goods and Fabrics.** (*Perfectionnements aux méthodes de coudre et garnir les tricotés et les tissus, et aux machines pour cet objet.*)

Stockton Borton, Philadelphia, Pa., and Charles H. Willcox, New York, N. Y., U. S., 15th April 1882; for 5 years.

**Claim.**—1st. In a trimming attachment for sewing machines, mechanism for clamping the fabric on opposite sides of the cutting edges of a pair of shears. 2nd. Clamping the fabric to be trimmed between one of the shear blades or cutters, and a holding finger or device. 3rd. A holding finger with roughened or toothed holding surface. 4th. The several forms of presser foot with holding finger. 5th. In a trimming attachment having a shear cutter capable of a rectilinear side movement, the oblique arrangement of the cutting edge of the two shear blades or cutters with respect to each other. 6th. In a trimming attachment, having one of the shear blades or cutters capable of a rectilinear side movement, the spring for holding it with its cutting edge in contact with that of the other cutter, this combination and arrangement being claimed as well for shear blades with parallel cutting edges, as for those having the cutting edges slightly oblique. 7th. The combination of the adjustable back stop with the laterally movable and vibratory blade and its spring. 8th. The combination of the stationary cutter with oblique cutting edge with the elements of claim 7. 9th. The rock shaft carrying the vibratory blade or cutter and extending from a point near the presser foot over the edge of the cloth plate and receiving a rocking motion from the main or looper shaft. 10th. In attaching or holding the vibratory cutter or blade against the end of the rock shaft by means of a screw, and a projection such as a steady pin. 11th. Arranging the vibratory cutter and rock shaft so that the trimmed off portion of the goods passes over said shaft. 12th. Arranging the rock shaft which carries the vibratory cutter under the cloth plate. 13th. The combination, with the rock shaft supported on the cloth plate and carrying the vibratory blade or cutter, of an inclined plate in front of said shaft. 14th. In a sewing machine with trimming attachment, the upright projection in front of the needle hole. 15th. The presser foot provided with a narrow toe, a lateral projection and an upright projection in front of the needle hole. 16th. Adjusting a sewing machine trimmer by the positive or direct mechanical action of a screw or equivalent device. 17th. Sewing or uniting knitted goods by means of a combined sewing and trimming machine, or otherwise with trimmed seams of plain sewing machine stitches, equal or about equal in length to the gauge of the fabric. 18th. Making a welt or hem by folding and sewing the fabric, and trimming off the surplus material simul-

taneously with the sewing operation. 19th. The method and means for guiding, sewing and trimming a welt or hem. 20th. The folding edge guide in its several forms. 21st. The combination of the folded edge guide and the overhanging guide. 22nd. The folded edge guide, in combination with a sewing machine having a presser foot. 23rd. The combination, with a combined sewing and trimming machine, of an edge guide arranged between the line of sewing and the line of trimming. 24th. The overhanging guide, in combination with a combined sewing and trimming machine. 25th. The folded edge guide and overhanging guide in the same combination. 26th. Detachably connecting the folded edge guide with an adjustable carrier plate. 27th. Supporting the folded edge guide, and the overhanging guide upon a common carrier plate adjustable. 28th. Cutting away the folded edge guide opposite the end of the overhanging guide. 29th. In combination with a presser foot cut away and provided with a lateral projection, an edge guide grooved or recessed under the said projection. 30th. The elements of claim 29 in combination with a combined sewing and trimming machine. 31st. A guide with oblique guiding edge, in combination with a presser foot cut away. 32nd. An adjustable holding finger or device in combination with a sewing and trimming machine for welting or hemming. 33rd. Measuring off the thread for each stitch by clamping the thread between a measuring pull off, and the stitch forming mechanism during the operation of the pull off, and then releasing the clamp and leaving the thread free to be drawn upon until the measured quantity is used up and further delivery is stopped by a suitable resisting tension, so that the same length of thread is worked into each stitch. 34th. The combination of an adjustable pull off, with an intermittent clamping tension and a resisting tension. 35th. The combination of a light check tension with a measuring or adjustable pull off and tension. 36th. The special construction of the resisting tension, of the intermittent clamping tension and of the modified form of check tension. 37th. The means described for producing an adjustable operation of the pull off. 38th. A feed lock for preventing the operator from altering the length of stitch. 39th. The special means for locking the device for regulating the length of stitch in a feed movement for sewing machines. 40th. A sewing machine provided with trimming attachment, welting or hemming guides, measuring tension and pull off, and feed lock.

**No. 14,599. Improvements on Air Cushion Compression Cylinders for Gang Saws.** (*Perfectionnements aux cylindres de compression à coussinets atmosphériques pour les scies en groupes.*)

George W. Nichols, Clinton City, Iowa, U.S., 15th April, 1882; for 5 years.

**Claim.**—The combination, with the air cushion compression cylinder *a* having inlets *i* and piston *b*, of the air cushion compression cylinders *b b* having pistons *m m* and rods *f f*, the connection between the said cylinders *a* and *b b* being made by means of pipes *K K* having valves *o q* and *r*, for giving a yielding force to the rollers *n n*.

**No. 14,600. Improvements on Air Cushion Compression Cylinders for Pressure Rollers of Gang Saws.** (*Perfectionnements aux cylindres de compression à coussinets atmosphériques pour les rouleaux de pression des scies en groupes.*)

George W. Nichols, Clinton City, Iowa, U.S., 15th April, 1882; for 5 years.

**Claim.**—The combination of twin air cushion compression cylinders *l l* having pistons *h h*, with the pressure rollers *n n* of a gang saw mill, the cylinders *l l* having air chests *i i* provided with valves *o o*, and connected together by means of the air pipe *t* having an induction pipe *t*.

**No. 14,601. Improvements on Car Brakes and Fenders.** (*Perfectionnements aux freins des chars et aux chasse-pierres.*)

John G. Schiller and Joseph W. Smith, Youngstown, Ohio, U.S., 17th April, 1882; for 5 years.

**Claim.**—1st. The draw-head C and rod D, carrying brake-shoes E and a suitable leverage link *d*, in combination with the timber F, brake-shoes H and rods *f g* connected to said timber. 2nd. The combination, with the timber F, carrying brake-shoes H and rods *f g*, of the draw-head C, rod D and rod *p* carrying yoke I. 3rd. The draw-head C, rod D carrying brake shoes E and leverage link *d*, and the yoke I, in combination with the timber F, brake-shoes H, rods *f g* and gauge nuts *i k*. 4th. The combination, with the pivoted bar *l* and rods *m o*, of the rod D carrying brake shoes E and leverage link *d*, with crank *e*. 5th. The pivoted or hinged fender or snow plough *L*, connected to the frame of the car truck.

**No. 14,602. Improvements in the Manufacture of Car Wheels.** (*Perfectionnements dans la fabrication des roues des chars.*)

Jacob Reese, Pittsburg, Pa., U.S., and William H. Burland, Montreal, Que., 17th April, 1882; for 5 years.

**Claim.**—1st. The method of manufacturing cast steel car wheels, which consists essentially in the following steps: first, casting the car wheel blank with hub and web of the shape and proportions of the finished wheel, and with the flange or tread wider and less in diameter than what is required in the finished wheel, and secondly, subjecting said blank to the action of rolling dies, which true the web and hub without compacting the metal, and which compress and compact the flange or tread, whereby a cast steel car wheel having a tough ductile web and hub and a hard dense tread is obtained. 2nd. As a new article of manufacture, a solid rolled or pressed cast steel car wheel, having smoothly finished