

a high degree before mixing the same with the asphalt, and in mixing these two ingredients while they are both highly heated; 2nd. The improvement in the process of manufacturing compressed concrete paving blocks, which are moulded and condensed by pressure while hot, which improvement consists in caulking the surface of the compressed block while it is in, or as it comes from, the mould, by the application of water to the block.

No. 8838. Chemical Compound for the Treatment of Hides. (*Composé chimique pour le traitement des peaux.*)

Friedrich Knapp, Brunswick, Germany, 27th May, 1878, for 5 years.

Claim.—1st. The oxide salt, basic sulphate of iron prepared as (and having the physical properties) described. 2nd. The process of preparing basic sulphate of iron, consisting, first, adding nitric acid to the boiling solution, of sulphate, of protoxide of iron and subsequently adding to the resulting solution sulphate of protoxide of iron, and either allowing the salt to remain in solution or evaporating the same to dryness.

No. 8839. Improvements in Churns. (*Perfectionnements dans les barattes*)

Beauchamp Cokley and James F. Shedden, Moores, N. Y., U. S., 27th May, 1878, for 5 years.

Claim.—The combination with a central vertical spindle carrying blades and rotated in one direction, of a frame also carrying blades attached to a sleeve, mounted on the spindle and revolving in the contrary direction.

No. 8840. Improvements on Washing Machines. (*Perfectionnements aux machines à laver.*)

William F. Wilkins and James T. Sawyer, Montreal, Que., 27th May, 1878, for 5 years.

Claim.—1st. The spiral springs or rubbing surface *s*, drum or cylinder *c*, spindle *b* and journals *e*, having slots *a*, in combination with the box or tub *a*. 2nd. The spiral springs or rubbing surface *t*, drum or cylinder *r*, spindle *i*, in combination with the box or tub *a* having slots *m*, one on either side.

No. 8841. Polisher and Cleaner for Pealed Barley. (*Polisseur et nettoyeur pour l'orge mondée.*)

Frédéric Lalonde, St. Michel, Que., 27th May, 1878, for 5 years.

Résumé.—1o. Une nouvelle croisse mobile *I* pour le nettoyage des tréillis, et la combinaison des roues à engrenages *H* et *H'* de 45° pour servir de vis de rappel. 2o. Un nouveau instrument *T* combiné avec l'arbre *P* et perforé tel que décrit. 3o. La forme du tréillis *N* dont les broches sont posées obliquement au lieu d'être perpendiculaires.

No. 8842. Improvements in Corsets. (*Perfectionnements dans les corssets.*)

Joseph Goulliond, Montreal, Que., 27th May, 1878, for 5 years.

Résumé.—1o. Un corset de jono tissé au métier ordinaire pour n'importe quelle matière textile comme chaîne; 2o. Comme trames dans des brins de jone *b* et *bi*, ou rotin, paille d'Italie, de Panama ou autre paille ou herbes marnes, ou autres analogues, minces, plates et flexibles, refermées ou non colorées ou non, argentées ou dorées, et coupées en biseau pour les gous sets *B* et *B'*. 3o. Réunis ensemble par la simple contexture de la chaîne *a* ou séparés entre eux par un, deux ou plusieurs fils de contre-trame *c* de n'importe quelle autre matière textile.

No. 8843. Improvement in Breast Collars. (*Perfectionnement dans les bricoles de harnais.*)

Lewis Gibbs and William Gibbs, Canton, Ohio, U. S., 27th May, 1878, for 5 years.

Claim.—1st. A breast collar frame *A*, having the draft arms *B* bent inward at *M*, to form bearings for pads *O* *O* and attachments for traces, and with the front portion bent downward at *M*, from the plane of the arms *B* *B*; 2nd. A breast collar frame made in two pieces, adjustable by means of a hinged joint at its lower end at *C* and *F* *F*; 3rd. The upright draft pads *O* *O*, in combination with the collar frame *A*; 4th. The draft pads *O* *O* provided with concave sockets *Q*, in combination with ball *N* on screw pin or bar *P*.

No. 8844. Process for Manufacturing Artificial Stone. (*Procédé de fabrication de la pierre factice.*)

John A. Murray, Yarmouth, N. S., 27th May, 1878, for 5 years.

Claim.—1st. An artificial stone composed of sand, cement and lime, and hardened and treated by the described method of subjecting the same to the action of steam and carbonic acid gas; 2nd. The combination of the structure *A*, furnace *B*, vessel *C* and tank *D*, with the pipes *F* *E*.

No. 8845. Improvements on Wringers. (*Perfectionnements aux essoreuses.*)

Franklin F. Adams, (Assignee of Melvin N. Lovell,) Erie, Pa., U. S., 27th May 1878, for 5 years.

Claim.—The standards *ff* cast with the fixed sockets or bearings of the upper roll, the oblong opening for the springs and movable bearings of the lower roll, and the lugs for attaching the clamps and cross-bar.

No. 8846. Improvements in Protractors. (*Perfectionnements dans les rapporteurs.*)

Robert T. Osgood, Orlando, Me., U. S., 27th May, 1878, for 5 years.

Claim.—1st. The vertical centre point *H* secured to the gauge *B* and extending downward through the semi-circular opening of the rotating disc *E*. 2nd. The horizontal gauge plate *C* of the spring *D*, in combination with the rotary disc *E* and base *A*; 3rd. The square base *A* with its graduated sides by tenths and inches and with its discs opening through the centre.

No. 8847. Improvements on Hose Couplings. (*Perfectionnements aux manchons des boyaux.*)

Frederick Stewart and Oscar F. Souder, St. Louis, Mo., U. S., 27th May, 1878, for 5 years.

Claim.—1st. The combination with the interior tapering sleeve of the male or female coupling, of the split and tapering screw-head and outer tapering screw sleeve, for clamping the hose end; 2nd. The combination of the inner sleeve *A* of the female coupling, with an interposed collar screwed on the end of the sleeve and the female coupling *I* turning on the shoulder of the collar; 3rd. The sleeve *A* having a series of offsets or shoulders *a*, for receiving the hose end.

No. 8848. Improvements on Ships' Windlass. (*Perfectionnements aux guindeaux.*)

Daniel C Peppard, Great Village, N. S., 27th May, 187, for 5 years.

Claim.—The combination of the wooden drum *A* having the end caps *L*, and the chain wheel *D* lugging therewith by the keys *M*.

No. 8849. Improvements on Mechanical Musical Instruments. (*Perfectionnements aux instruments de musique mécaniques.*)

Oliver H. Arno, Somerville, and John E. Turner, Cambridge, Mass., U. S., 31st May, 1878, for 5 years.

Claim.—1st. The combination of a sound producing plate *B*, or its equivalent, a hammer head *C* a spring lever stem *a*, having a butt piece *c* and a bar *F*, with a strip of paper or other sheet material adapted to pass between the said bar and butt piece; 2nd. The rail *H*, having the attached spring *G*, in combination with the butt piece *c*, having a spring hammer *C* and a tail piece *d*, against the upper side of which the free end of the spring bears, whereby said spring in its reaction throws the hammer against the sounding plate. 3rd. The stem *a*, butt piece *c*, hinge *b* and tail piece *d*, when made in one piece of wire.

No. 8850. Machine for Cutting Hoops. (*Machine à tailler les cercles.*)

John B Dougherty, Rochester, N. Y., U. S., 31st May, 1878, for 5 years.

Claim.—1st. The method of cutting hoops from a log, by means of two cutting knives acting at right angles to each other one of them severing the side of the hoop and the other its thin edge from the solid log; 2nd. A hoop cut radially from a log so that the radial lines of the cut shall give to the hoop the necessary level required to fit the taper of barrels, casks, or other articles of cooper's ware. 3rd. The vertically and longitudinally moving knife carrier and its guides, in combination with the parallel bars *e* their supports, the connecting rod *d* and crank shaft *F*, 4th. The horizontally moving knife carrier and knife and its supports and guides, in combination with the universal jointed connection and crank shaft *F*, for the purpose of cutting the narrow edge of the hoop from the log. 5th. The vertically moving knife its carrier, the connecting rod *d* and shaft *F*, provided with spur gear *a*, in combination with the shaft *F*, carrying spur gear *a* connecting rod *g* and horizontally moving carrier and knife for the purpose of severing one side and the edge of a hoop from the log. 6th. The spring pressed and fluted feed roller *S*, resting and acting upon the periphery of the log in combination with its operating mechanism. 7th. The crank shaft *F*, cam *P*, lifting bar *Q* and rack shaft *R*, in combination with the toothed bar *T*, and ratchet *v*, for the purpose of rotating the feed roller. 8th. The toothed inclines *M* in combination with the vertically adjustable centre chucks, for the purpose of raising the log as it rotates. 9th. The central wedge *N*, in combination with the pinion *I* and shaft *O*, for the purpose of affording a solid central support to the log. 10th. The slotted swinging supports *K*, in combination with the vertically adjustable centre chucks *H* and *H'*; 11th. The swinging support *K*, in combination with the arc-shaped shoe *K*, and adjusting screws *j* and *ji*. 12th. The removable knife carrying slide *Y*, in combination with the shaft *Y*, and connected pinion and rack to afford a ready means of truing the log before cutting into hoops. 13th. A machine for cutting hoops embodying the following instrumentalities, namely, a vertically reciprocating knife, a horizontally moving knife, a feed roller operating upon the periphery of the log to be cut, and a central log support; 14th. In a hoop cutting machine, log holding centres or chucks sustained in swinging supports, in combination with the mechanism employed for adjusting and rotating the centres as the log becomes smaller.

No. 8851. Improvements in Sash-holders. (*Perfectionnements aux arrêto-croisées.*)

William H. Mead and Edwin J. Davis, (Assignees of Enos Mead,) Galway, N. Y., U. S., 31st May, 1878, for 5 years.

Claim.—The combination of the eccentric *b* and flexible spring or friction plate *d*.

No. 8852. Improvements on Mills for Grinding Middlings. (*Perfectionnements aux moulins à mouler les gruaux.*)

Jonathan Mills, Milwaukee Wis., U. S., 31st May, 1878, for 5 years.

Claim.—1st. A mill for grinding middlings with stones of naraculite or onchita stone from 6 to 8 inches in diameter, and constructed to run at a very high velocity. 2nd. The spindle yoke *D*, constructed to hold the spindle firmly, take up the end shake therein and permit the vertical movement of the yoke and spindle together, thereby raising and lowering the stone without slipping the spindle in its bearings; 3rd. In combination with the yoke *D*, the differential screw *F*. 4th. In combination with a fixed upper millstone *M*, the hopper *X*, tightly fastened to the plate fixed to the upper stone so as to exclude the air from entrance at the eye of the stone; 5th. A millstone dress so as to do all the grinding or granulation at the skirt of the stone, with from 1½ to 2 inches of the skirt *e* of the stone, the centre of the stone being dressed out so as to admit the free passage of the material to be ground; 6th. The curb, composed of the two segments *l* and *2* fastened together with the ring *3*, or other suitable means so as to be readily removed to permit access to the stone without taking the mill apart. 7th. The combination of the differential screw *F*, yoke *D*, spindle *L* and lower stone *N*; 8th. The combination of yoke *D*, provided with hub *c*, notched as shown, with spring catch *d*; 9th. The process of manufacturing flour from middlings, by first