

The latch plate *g*, having the oval finger hole *z*: 7th. The finger button *o*, in combination with a suitable device for arresting the cartridge in the magazine tub; 8th. In combination with the hammer *b*, the pin *e*, with its head *e*, in combination with the recesses *f*, *h*, arranged to be depressed at the instant of cooking the gun; 9th. The hammer *b*, with its locking pin *e*, and the recesses *f*, *h*, the S shaped bar or lever *o*, having one end provided with a trigger set while the other end is formed into a wedge and employed to lift the head *e*.

No. 3393. THOMAS H. COBLEY, Turin, Italy, 1st May, 1874, for 15 years: "Process for Treating Copper Pyrites, Copper Blends and other Sulphuretted Copper Ores which contain Iron." (Procédé de traitement des pyrites et de la blende de cuivre et autres minerais de cuivre sulfurés contenant du fer.)

*Claim.*—1st. The several alternative processes described in the first part of the specification but not the separate steps thereof except in combination, as a process for treating copper ores and except the separate steps hereinafter specially claimed; 2nd. The formation of poly-sulphide of calcium by exposing lime, carbonate of lime or limestone to the fumes of the roasting sulphuretted ores, and by calcining the compounds of lime or calcium hereinafter mentioned with pyrites ore, all as described; 3rd. The formation of bi-sulphide of magnesium, as described, and the use of the same as a source of sulphuretted hydrogen for the purpose of precipitating copper and the precipitation of copper by adding a solution of bi-sulphide of magnesium to the solution to be precipitated, both as described; 4th. The formation of the sesqui sulphide of aluminium and its use as a source of sulphuretted hydrogen as described; 5th. The generation of sulphuretted hydrogen for the precipitation of copper by bringing a saturated solution of sulphate of magnesia into contact with a saturated solution of poly-sulphide of calcium and the conversion of the mono-sulphide of magnesium thereby produced into the soluble bi-sulphide by the use of a dilute solution of poly-sulphide of calcium as described; 6th. The use of the calci-hydrate of lime in reducing sulphuretted ores of copper poor in sulphur in the manner described in the second part of this specification and also the method of procuring sulphuretted hydrogen and poly-sulphide of calcium directly from the mass in the process of calcining such ores of copper with lime as described.

No. 3394. DANIEL W. DAKE, Beloit, Wis., U. S., 1st May, 1874, for 15 years: "Machine for Working Butter." (Machine à apprêter le beurre.)

*Claim.*—1st. The endless and corrugated apron *C*; 2nd. The arrangement of the endless and corrugated apron *C*, the adjustable and corrugated roller *D*, and the adjustable roller *B*, having all its parts constructed and arranged for joint operation, as set forth in the drawing.

No. 3395. DANIEL W. DAKE, Beloit, Wis., U. S., 1st May, 1874, for 15 years: "Process for Preparing a Colouring Matter for Butter." (Procédé pour préparer une matière colorante pour le beurre.)

*Claim.*—1st. The method or process described of preparing a colouring matter for butter consisting of melted butter, the colouring matter of annatto and curcuma combined as set forth; 2nd. A new composition of matter for colouring butter, in melted butter, the colouring matter of annatto and curcuma prepared and combined as described, having all the constituent ingredients prepared as set forth.

No. 3396. JOSEPH T. FEWKES, Philadelphia, Penn., U. S., 1st May, 1874, for 5 years: "Improvements on Anchors." (Perfectionnements aux ancres.)

*Claim.*—1st. The angular shank *A*, made of a single unyielding bar bent at its middle portions to form crown and bearing for the fluke shaft or bar, its two ends converging to the eye piece and fastened thereto as described; 2nd. In combination with the angular bent shank *A*, the studs or braces *G*, *G*, located between the bends *A*, *A*: 3rd. In combination with the shank *A*, constructed as described and the fluke shaft or bar *C*, having its bearing in the crown thereof, the chains *K*, *K*, and shackle *L*, the pin *I*, of the latter being of less strength than the chains, as set forth; 4th. In combination with a shank *A*, and journalled fluke bar *C*, a bearing of brass or other non-corrosive material, as described.

No. 3397. HENRY WHITESIDE, Jr., Ottawa, Ont., 1st May, 1874, for 5 years: "Improvements on Spring Beds." (Perfectionnements aux lits à ressorts.)

*Claim.*—1st. The boards *A*, *A*, in combination with blocks; 2nd. The perforated blocks *B*, *B*, with thumb screw; 3rd. The thumb screws *F*, *F*, in combination with blocks, slats and boards; 4th. The flexible *X* shape band *E*, to prevent side or end motion, the whole arranged together for the purpose set forth.

No. 3398. LEANDER W. BOYNTON, Hartford, Ct., U. S., 1st May, 1874, (Extension of Patent No. 193, N. B.): "Machine for Pointing and Counting Skewers." (Machine à empointer et compter les broches.)

*Claim.*—1st. The cutters *K*, and *K*, Figs. 3 or 4, in combination with the concave bed piece *D*, cap piece *G*, *G*, and cylinders *L*, *L*, constructed, combined and operated as described; 2nd. The grooved cylinder *B*, having any desired number of grooves thereon for the purpose of counting and in connection with the cylinders *L*, *L*, of delivering the sticks to the cutters constructed and operating as described.

No. 3399. JULIUS P. BELLINGTON, Dundas, Ont., 4th May, 1874, for 5 years: "Improvements on Farmer's Horse Power." (Perfectionnement au manège dit "de Farmer.")

*Claim.*—The introduction of two ball pinions *B*, *B*, thereby making it a double pinion horse power, in substituting (instead of the spur wheels) the bevel wheels *C*, *C*, and bevel pinion *D*, also in the manner of arranging the shafts *E*, *E*, and *F*, in said horse power.

No. 3400. GEORGE BOLTON, Arnprior, Ont., 4th May, 1874, for 5 years: "Improvements on Farm Gates." (Perfectionnements aux barrières de fermes.)

*Claim.*—The arrangement of the pivot post *A*, boxed into the weight box *C*, and the shifting block *B*, as set forth.

No. 3401. ALFRED MARGRETT and CHARLES H. MOFFATT, Orillia, Ont., 4th May, 1874, for 5 years: "Machine for opening and Securing Window Sashes." (Machine pour ouvrir et arrêter les croisées.)

*Claim.*—The bolt *A*, combined with the handles *B*, and *C*, *J*, operated by a spiral spring placed in the chamber *G*, and connection of bolt *A*, to lock notch *H*, Fig. 1, also to catches *F*, *F*, *F*, as set forth.

No. 3402. HENRI H. D'ABRIGEON, Montreal, Que., 4th May, 1874, for 5 years: "Apparatus for Equilibrating Millstones." (Appareil à équilibrer les meules de moulins.)

*Claim.*—The three or more equilibrators *b*, supported by the bearers *b*, in the boxes *B*, adjustable at will so as to bring the centre of gravity of a mill stone upon the line of rotation, the whole constructed and operated as set forth.

No. 3403. WILLIAM TODD, Portland, Me., U. S., 4th May, 1874, for 5 years: "Improvements on Self-Locking Car-Couplings." (Perfectionnements aux attelages de wagons automatiques.)

*Claim.*—1st. In a car coupling constructed and adapted for carrying in one or both drawheads a spare link. 2nd. The recess *p*, in combination with the latch *r*, lip *q*, or its equivalent and spur *s*, upon the link *b*, whereby the link is retained within the drawhead; 3rd. The addition to a coupling link of the spur *s*, or its equivalent for retaining the link within the drawhead; 4th. The construction of the link chamber and the latch as described in combination with the spur *s*, or its equivalent, whereby the link is retained within the chamber, in the manner and operating as set forth.

No. 3404. JAMES CARPENTER, Southampton, Eng., 4th May, 1874, for 5 years: "Improvements on Apparatus for Supporting, Lowering, Attaching and Detaching Ships-Boats." (Perfectionnements aux appareils à suspendre, abaisser, attacher et détacher les canots des navires.)

*Claim.*—1st. The moveable davits *a*, *a*, turning upon centres *b*, *c*, *c*, *c*, in combination with the self-adjusting bars *v*, *v*, *u*, *u*, forming a cradle for the ships boat; 2nd. The combination of the moveable davits *a*, *a*, and the self-adjusting cradle *v*, *v*, *u*, *u*, with the shaft *e*, revolving in bearings *d*, *d*, on the davits and carrying the ropes *h*, *h*, to which the ships boat is suspended, and with the rope *K*, *K*, and the barrel and shaft *l*, *m*, by which the shaft *e*, is made to revolve; 3rd. The combination of the moveable davits *a*, *a*, with the toothed sector and screw *r*, *s*; 4th. The moveable jaws *D*, *D*, *D*, and levers and rods *E*, *E*, *E*, and locking levers and catches *F*, in combination with the conical catches attached to the suspending ropes *h*, *h*; 5th. The combination with the moveable davits *a*, *a*, and the shafts *b*, and *c*, of the brakes *o*, *o*, and the moveable lever *G*, *H*, *I*.