

adapted to be inserted in any one of said holes for arresting the rotation of the shaft, substantially as set forth. 7th. In an adding-machine, a disk having a spiral series of holes and a corresponding cam-groove, in combination with the registering wheels, means for turning them, a stop-pin adapted to be inserted in any one of said holes, and mechanism operated by the cam groove for coming in contact with said stop-pin, and arresting the further rotation of the registering wheels, substantially as set forth. 8th. The combination of the shaft E having a clutch-connection with the register-wheel I, a stop-bar W sliding transversely to the shaft having a stud W₁, and a fixed plate C having a spiral cam-groove C₁ in which the stud works, and a spiral series of holes C₂, for the purpose set forth. 9th. The combination of the shaft E, a register-wheel turning freely thereon, a clutch-collar U turning with the shaft but having vertical movement thereon, a cross-bar fixed to the collar and having teeth engaging the register-wheel, and a lever constructed to lift the collar and having a finger engaging the register-wheel when the teeth of the cross-bar are disconnected therefrom, for the purpose set forth. 10th. In an adding-machine, the combination, with the units-wheel of the operating shaft, the sliding clutch mounted thereon, the detent for preventing retrograde rotation of said wheel, and a single operating lever whereby the clutch is moved into, and the detent out of engagement simultaneously, and *vice versa*, substantially as set forth. 11th. In an adding-machine, the combination, with the registering wheels and the operating shaft, of the sliding clutch-sleeve U, the cross-bar U₁, the forked lever V engaging at one end with said sleeve, the depressible operating rod V₂ engaging the other end of the lever V, and having the extension V₃, and the elevating-spring V₄, substantially as set forth. 12th. The combination of the shaft T₁, the lever T₂, spring T₃, the shaft E with suitable gearing between the shafts, a register-wheel turning loosely upon the shaft, a clutch-connection U U₁ U₂ and actuating lever V having a finger V₃, engaging the register-wheel when the clutch is disengaged, substantially as set forth. 13th. The combination, with the toothed wheel, the pallet engaging therewith and means for oscillating said pallet, of the slide B to which said pallet is secured, substantially as set forth.

No. 30,029. Dry Closet. (*Cabinet à la terre sèche*)

Isaac D. Smead, Toledo, Ohio, U.S., 22nd October, 1888; 5 years.

Claim.—1st. The combination, in a dry closet, of a vault having a duct A connected to the vent shaft E at one end for the passage of a current of air, and a separate duct B₁ underneath the former and connected at one end to a smoke duct F for the passage of smoke, with a heater located at or near the entrance or mouth of said vault, and having its smoke pipe connected to the lower duct, substantially as and for the purpose set forth. 2nd. The combination, in a dry closet, of a vault provided with the two horizontal ducts D and D₁, arranged one over the other and separated by a horizontal partition of absorbent material, the upper of said ducts being connected with a vent shaft for the passage of air and the lower of said ducts being connected with smoke duct F, and a heater H located at or near the mouth of said ducts, and having its smoke pipe connected to the lower duct, substantially as and for the purpose set forth.

No. 30,030. Apparatus for the Manufacture of Charcoal. (*Appareil pour la fabrication du charbon de bois*)

Jacob Scherffuis, Winona, Minn., U.S., 22nd October, 1888; 5 years.

Claim.—1st. In an apparatus for producing charcoal, the combination, with a fire-box and a jacket surrounding it and forming a hot-air chamber, of a charring-receptacle receiving air from, and returning it to, the said hot-air chamber, a jacket surrounding said charring-receptacle and forming a chamber into which the products of combustion are led from the fire-box, and a smoke outlet for said chamber, substantially as set forth. 2nd. In an apparatus for producing charcoal, the combination, with a fire-box surrounded by a hot-air chamber, of a charring chamber, a jacket surrounding said charring-chamber, a pipe leading from the hot-air chamber to a point within the charring-chamber, pipes leading from the charring-chamber to the lower portion of the hot-air chamber and discharging air therein to be reheated, and pipes connecting the outlet of the fire chamber with the space between the charring-chamber walls and the jacket surrounding the same, substantially as described. 3rd. The combination, with a fire-chamber and a jacket surrounding the same, of a jacketted receptacle above the fire-chamber, a pipe leading from the hot air space around the fire-chamber into the said receptacle, a smoke outlet pipe connecting the fire-chamber with the space between the receptacle and its jacket, and a pipe leading from the bottom of the receptacle into the jacketted space around the fire-chamber, and provided with a water trough, and a discharge nozzle entering a tank to discharge the products of distillation and be sealed therein and thereby prevent the entrance of cold air, substantially as set forth. 4th. The combination, with a jacketted fire-box, of a receptacle above the same, a pipe entering the receptacle from said jacketted space, and a return pipe leading from the bottom of the receptacle and discharging the air into the bottom of the jacketted space, and provided with a sealed discharge nozzle for the products of distillation, substantially as described. 5th. In an apparatus for producing charcoal, the combination, with a fire-chamber, of a charring chamber, a jacket surrounding said charring-chamber, a space being left between the walls of the charring-chamber and the walls of the jacket, pipes connecting the outlet of the fire-chamber with the space between the walls of the charring-chamber, and its jacket, valves or dampers, arranged in connection with said pipes, a smoke-pipe leading from the space between the charring-chamber and its jacket, and a branch smoke-pipe provided with a damper leading from the discharge opening of the fire-chamber to the main smoke-pipe, substantially as described.

No. 30,031. Propeller Wheel.

(*Helice de propulsion.*)

Henry D. Hodgeman, Laramie, Wyoming, U.S., 22nd October, 1888; 5 years.

Claim.—A wheel consisting of a series of blades radiating diagonally from a central hub, turning as they approach the periphery to lie in a plane at right angles to the hub, said blades merging into a peripheral ring, and constructed thickest at their point of intersection with the hub, and thinnest at the periphery, whereby essentially circular openings are formed projecting diagonally through the wheel in a double curve, or S-shaped line, substantially as shown and described.

No. 30,032. Combined Anvil, Vise and Drill.

(*Enclume, étau et drille combinés*)

John A. Robbins, London, Ont., 22nd October, 1888; 5 years.

Claim.—A combined implement consisting of frame A, anvil B, sliding vise blocks C, J, and drill F, G, said vise-blocks and drill being adjustably attached to the frame A by set-screws I, E, or pins, substantially as shown and specified.

No. 30,033. Device for the Manufacture of Engravers' Blocks (*Appareil pour la fabrication des blocs de graveurs.*)

Charles Thomson, Toronto, Ont., 22nd October, 1888; 5 years.

Claim.—A planer and jointer for the manufacture of engravers' blocks and other articles, composed of the foregoing described parts, substantially as combined and arranged and operating as set forth.

No. 30,034. Imprinting Marks and Devices upon Folded Piece Goods, and in Apparatus therefor. (*Marque et appareil d'impression sur les pièces des marchandises pliées et appareil pour cet objet.*)

James A. Cundall, Manchester, Eng., 22nd Oct., 1888; 5 years.

Claim.—1st. A printing block, having the letters or characters in relief, and the sides vertical or under cut, as set forth. 2nd. In a printing machine, the combination of an intermittently travelling web B₂, a platen Q to which the printing block is secured, inked devices, consisting of rollers X, P, S, S₁, a bed plate B₃, a gauge plate or plate U, and mechanism timed to adjust and operate the several parts automatically, substantially as set forth.

No. 30,035. Box or Crate. (*Boîte ou manne.*)

Charles E. Parks, Watertown, Wisconsin, U.S., 22nd October, 1888; 5 years.

Claim.—1st. In a box section, the combination of a suitable frame having wires or cords stretched across the same, with a flexible wooden filling, woven in and out or over and under said wires or cords. 2nd. In a box section, the combination of a suitable frame, having wires or cords stretched across the same, with a filling, consisting of thin strips of wood, woven alternately over and under said wires or cords, and secured at their ends to said frame. 3rd. A box or crate, consisting of a series of box sections, and formed of a frame having wires or cords stretched across the same, and a filling of thin strips of wood woven over and under said wires or cords, and removable fastening devices for temporarily securing said sections together.

No. 30,036. Hot Water Furnace.

(*Caloryère à eau chaude.*)

Jean Baptiste Vincent, Montreal Quebec, 22 Octobre, 1888; 5 ans.

Résumé.—Dans un fournaise à eau chaude et portant des "drop tubes" ou tuyaux en culs de sac, la série ou faisceau de "drop tubes" L, reliés à une plaque V pouvant laisser passer les tuyaux K, K₁, le tout pouvant être enlevé en bloc du corps principal de la fournaise, en combinaison avec le compartiment G, à enveloppes concentriques E, H, les tuyaux K, K₁, les retours d'eau froide I, I₁, les courbes Q, Q₁, à boudins T, I, et la distribution J, J₁, J₂, J₃, O, O₁, O₂, le tout tel que ci-dessus décrit et pour les fins sus-mentionnées.

No. 30,037. Fire Signal and Burglar Alarm.

(*Avertisseur d'incendie et d'effraction.*)

James E. Church and W. J. Blakely, Minneapolis, Minnesota, U.S., 24th October, 1888; 5 years.

Claim.—1st. The combination, in a device of the class described, of an alarm mechanism, a casing enclosing the same, a shaft mounted in bearings in said casing and forming a pivotal support therefore, arms projecting in opposite directions from said shaft, a stop engaging said alarm mechanism, a spring adapted to hold said stop in engagement with said alarm mechanism, and a slide connected with the arms on the said shaft and engaging said stop, substantially as and for the purpose set forth. 2nd. The combination, in a device of the class described, of the alarm mechanism, the casing enclosing the same, a notched disk 23, the slide 33, provided with the detent adapted to engage the notch in said disk, the shaft 21 permanently mounted in bearings in said casing and forming a pivotal support therefore, and provided with the arms 47 engaging said slide, whereby said alarm mechanism is released as said casing is turned in either direction upon its pivot, or as the shaft is turned in either direction in said casing, substantially as described. 3rd. The combination, with the casing 2, of the alarm mechanism inclosed therein, the shaft 21 forming a pivotal support for said casing, the releasing device connected with said shaft, the bar 61 secured to said casing, and a series of wires 63 connected with said bar, and adapted to be connected with the doors and windows, for the purpose set forth. 4th. The combination, with the casing 2, of the alarm mechanism inclosed therein, the shaft 21 forming a pivotal support for said casing, the releasing device connected with said shaft, the bar 61 projecting from the top and bottom of said casing, and the