through the side of the cap opposite the opening *d*, and the lever D fulcrumed on the side of the cap and engaging with the valve stem 20, substantially as described. 2nd. The combination, with the cap or casing A, having the lateral discharge and vent openings, of the horizontally reciprocating valves 10, 8 for controlling the same, the valve stems 20, 7, extending outward through the same side of the cap, and the lever D fulcrumed on the side of the cap and engaging with the valve stems 20 7 to open both of the valves, substantially as described. 3rd. The combination, with the cap or casing A, having the lateral discharge opening *d*, of the horizontally reciprocating valve 10 for controlling the same, the valve stem 20 extending outward through the side of the cap opposite the opening *d*, the lever D fulcrumed on the side of the cap and engaging with the valve stem 20 to open the valve and the spring 17 for closing the valve, substantially as described. 4th. The combination, with the cap or casing A having the discharge opening *d* and cylinder *e*, of the valve 10 and valve stem 20 having the piston 13 whereby the valve is balanced, substantially as described. 5th. The combination, with the cap or casing A, having the discharge opening *d* and cylinder *e*, of the valve 10, the valve stem 20 having the piston 13, the lever D for opening the valve and a spring for closing the same, substantially as described. 6th. The combination, with the cap or casing A having the discharge opening *d* and cylinder *e*, of the valve 10 and the valve-stem 20, having the piston 12 provided with the cup-shaped packing 15, substantially as described. 7th. The combination, with the cap or casing A having the discharge opening *d* and cylinder *e*, of the valve 10, valve stem 20, having the piston 13, cup-shaped packing 15 and sleeve 16, substantially as described. 8th. The combination, with the cap or casing A, having the discharge and vent openings *d*, *i*, and cylinder *e*, of the valves 108, springs 17, 6, piston 13 and lever D, substantially as described.

No. 26,912. Harrow. (*Herse.*)

Eliza A. Callander (assignee of Austin Callander), Smith's Falls, Ont., 8th June, 1887; 5 years.

Claim.—1st. A harrow clip, consisting of a casing covering mortises, admitting and holding the bulls and tooth, and composed of a main body tapering internally and externally, and of a loose section engaged and held by the tooth and impinging against the bulls, substantially as set forth. 2nd. The combination of the sections C and C1, and mortises *a*, *b*, *b*1, substantially as set forth. 3rd. The combination of the loose section C1, main section C and mortise lug *d*, substantially as set forth. 4th. The combination, in a harrow, of the bulls B, B1, clips C having loose sections C1, teeth A, bars B11 and clips D, substantially as set forth. 5th. The combination of the clip section C, mortise *a* and joined spaces for the mortises *b* and *b*1, substantially as set forth. 6th. The combination of the section C1, top *c*, cheek *c*1 and mortise *a*1, substantially as set forth.

No. 26,913. Sewer Ventilator.
(*Ventilateur d'égout.*)

William H. McAndrews and Albert M. Gerstle, Youngstown, Ohio, N.S., 8th June, 1887; 5 years.

Claim—1st. In a sewer ventilator, the expansion chamber A of any suitable form and dimension, with a proper escape pipe from the ventilator for the purpose of receiving condensed sewer gases, and permitting the expansion of the same above the fresh air inlet D to create a more rapid escape of the gases through C, thereby increasing the inflow and movement of air through D into the sewer, substantially as described and for the purpose expressed. 2nd. In sewer ventilators, the fresh air inlet D and the gas escape pipe C in a trapless sewer or lateral, substantially as described and for the purpose expressed. 3rd. In a trapless sewer or lateral, the ventilator, consisting of the A, the escape pipe C and the air inlet D forming a gas check, while also introducing the air below the sewer gas, substantially as described and for the purpose expressed.

No. 26,914. Nut Lock. (*Arrête-écrou.*)

Orlando L. Castle, Upper Alton, Ill., Marshall Arnold and Rodney J. Hudson, Lakeport, Cal., U.S., 8th June, 1887; 5 years.

Claim.—A nut holder A, provided at each end and on opposite sides of the nuts to be held with a washer B and B1 respectively, with one of which it is connected by means of a hinge H, and with the other by means of a clutch H1 and hook *h*, substantially as described and for the purposes herein set forth.

No. 26,915. Earth Auger. (*Sonde à tarrière.*)

Henry Iwan and Louis Iwan, Streator, Ill., U. S., 10th June, 1887; 5 years.

Claim.—1st. An earth auger, having blades provided with downward and laterally cutting bits, substantially as described. 2nd. An earth auger, having blades provided with downward and laterally cutting chamfered bitts, substantially as described. 3rd. An earth auger, having blades provided with downward-cutting chamfered bits, and laterally-cutting chamfered slanting bits, substantially as described. 4th. An earth auger, having chamfered blades provided with downward cutting chamfered bits, and laterally-cutting chamfered slanting bits, substantially as described. 5th. An earth auger, having blades A, provided with bits *q* and *p*, substantially as and for the purpose set forth. 6th. An earth auger, having a yoke *r* upon its stem B, blades A secured upon the yoke and provided with bits *q* and *p*, substantially as and for the purpose set forth. 7th. An earth auger, comprising in combination a stem B, provided with a handle C and yoke *r*, converging chamfered blades A secured to the yoke, and downward-cutting bits *q*, and laterally-cutting slanting btis *p* extending from the lower extremities of the blades, substantially as and for the purpose set forth.

No. 26,916. Baling Press. (*Presse d'empaquetage.*)

George Ertel, Quincey, Ill., U.S., 10th June, 1887; 5 years.

Claim.—1st. The combination, with the press case and a plunger fitted therein, of a roller or rollers placed loosely between the plunger and the floor of the case, substantially as described for the purposes set forth. 2nd. The combination, with the press case and a plunger fitted therein and provided with grooves, as *f*, in its lower surface, of a roller or rollers placed loosely in said grooves on the floor of the case, substantially as described for the purpose set forth. 3rd. The combination, with the press case, a plunger, as D, fitted therein, and rollers, as F, placed loosely between the plunger and the floor of the case, of removeble roller retainers, as *f*, fitted in the plunger, substantially as shown and described. 4th. The combination, with the press case, a plunger, as D, fitted therein, and having roller ways or guides at its lower surface, of rollers, as F, placed loosely between the plunger and the floor of the case, and said plunger provided with openings *d*3, through which the rollers may be removed, substantially as shown and described. 5th. The combination, with the press case, a plunger, as D, fitted therein, and loose rollers, as F, placed beneath the plunger, substantially as specified, of a clamp or brake device fitted to the top of the press case, substantially as described, whereby as the plunger overbalances backward on the loose rollers it will be forced by said clamp or brake to the floor of the press case, as and for the purpose set forth. 6th. The combination, with the press case, a plunger, as D, fitted therein, and loose rollers as F, placed beneath the plunger, substantially as specified, of a clamping device fitted to the top of the press case, and comprising a brake lever E, hung to the case, and provided with inclined and flat clamp faces adapted to corresponding plates on the plunger and a pressure regulating fulcrum E1 to said lever, substantially as described for the purposes set forth. 7th. The combination, with the press case, a plunger, as D, fitted therein, and loose rollers, as F, placed beneath the plunger, substantially as specified, of a resistance bar placed at the rear end of the baling box feed opening, substantially as described, whereby as the plunger approaches the limit of its forward stroke it will, while overbalanced forward on the rollers, be forced by the resistance bar to the floor of the press case to relieve the rollers of excessive pressure, substantially as herein set forth. 8th. The combination, with the press case, a plunger, as D, fitted therein, and loose rollers, as F, placed beneath the plunger, substantially as specified, of a pivoted folder positioned at the rear end of the baling box feed opening, substantially as shown and described, whereby the folder will force the forwardly overbalanced plunger to the floor of the press case, and will simultaneously fold the material being pressed within the baling box, as and for the purposes set forth. 9th. The combination, with the press case, of a folder G pivoted at the rear end of the baling box feed opening, and provided with an outer face g^2, which folds the material being baled, and an inner or forward face g^1 coating with the press frame or lip thereon to prevent passage of the material between the folder and the press frame, substantially as shown and described. 10th. The combination, with the press case, of a folder G pivoted at the rear end of the baling box feed opening, and formed with faces g^2, g^1, and a lip, g^4, at the apex of the angle formed by said faces, substantially shown and described. 11th. The combination, with the press case, of a folder G pivoted at the rear end of the baling box feed opening, and formed with faces g^2, g^1, and a lip, g^3, adapted to stop against the press case or a lip thereon, substantially as shown and described. 12th. The combination, with the press case, of a folder G pivoted at the rear end of the baling box feed opening, and formed with faces g^2, g^1, and lips, g^4, g^3, said lips adapted to stop against the press frame or a lip thereon, substantially as shown and described. 13th. The combination, with the press case, of a folder G pivoted at the rear end of the baling box feed opening, and formed with faces g^2, g^1, and lips, g^4, g^3, adapted to stop against the press frame or a lip thereon, and springs I normally turning the folder downward, substantially as shown and described. 14th. The combination, with the press case, of a folder G pivoted at the rear end of the baling box feed opening, and formed with faces g^2, g^1, and operating substantially as specified, and a wear plate H, fitted to the case next the folder, and provided with an inclined face h^2, and a lip h^3, substantially as described for the purposes set forth. 15th. In a baling press, the combination, with the press case having a feed opening, of a platform provided with an opening to admit the body of the feeder or attendant near the feed opening of the press, substantially as described for the purposes set forth. 16th. The combination, with the press frame, of a feeder platform N attached at one edge to the frame next the baling box, and provided with an opening as O to admit the body of the attendant, and braces P sustaining the platform from the press frame, substantially as shown and described. 17th. A baling press, constructed with side linings of its baling box supported yieldingly or elastically at the rear end of said box, substantially as shown and described. 18th. A baling press constructed with side linings R, R of its baling box made to yield at the rear end of said box, combined with suitable timber supports or backing and bolts 6, nuts 7, and springs 9, substantially as described. 19th. A baling press constructed with the rear portion of its baling box, formed with two opposite walls supported yieldingly or elastically, and with its other two opposite walls fixed rigidly in positions to reduce the size of the baling box from the feed opening to the extreme rear end of the box, substantially as described for the purposes set forth. 20th. A baling press constructed with a frame, side walls or linings R, R, held thereto and adapted to yield at their rear ends, backings to said linings, bolts 6, nuts 7, and springs 9, substantially as specified, and top and bottom linings V, U, having forward parts *v*, *u* extending into the baling box and fixed in positions to reduce the depth of the box from its feed opening to its rear end by means of backing timbers 15, 16, and nutted bolts 17, substantially as shown and described. 21st. A baling press constructed with a bale chamber C formed by corner timbers A and two opposite linings held thereto, and springs fitted to the chamber walls to cause yielding pressure of the walls on the material being baled, substantially as herein set forth. 22nd. A baling press constructed with a bale chamber C formed by corner timbers A, and two opposite linings held thereto opposite timbers 19 fitted loosely in the timbers A, and springs fitted to the chamber walls to cause yielding pressure of the walls on the material being baled, substantially as herein set forth. 23rd. A baling press constructed with a bale chamber C formed by corner timbers A, and two opposite linings held thereto, in combination with cross bars or timbers arranged at the linings or walls of the press frame, bolts, as