

blocks the meter drum or its axis, on the pusher or operating expedient being pushed or driven home, substantially as set forth. 11th. In a gas vending prepayment attachment, the combination, with the stop arm e , of the arms n^2 , of the drum axis n , as set forth. 12th. In a gas vending prepayment attachment, the combination, with a drum axis, or an axis in connection with it, having arms n^2 , of a stop O , having an attachment part O^3 , as set forth. 13th. In a gas vending prepayment attachment, the combination, with a coin lever, of a lever q , having long and short arms q^2 , q^3 , and having connected with one or other of the said arms a pusher h . 14th. The combination, with an automatic vending gas meter attachment, of a quantity wheel d , worm or toothed wheel g , and clutch r , disposed between them, and stop arm e , made fast and strung upon an axis common to them, substantially as set forth. 15th. The combination, with an automatic vending gas meter attachment, of a coin lever i , i^2 , i^3 , i^4 , i^5 , operating arm q , q^2 , q^3 , pusher h , h^2 , and spring p , as set forth. 16th. The combination, with an automatic vending gas meter attachment, of a coin lever i , i^2 , i^3 , i^4 , i^5 , projection j , j^2 , j^3 , j^4 , operating arm q , q^2 , q^3 , pusher h , h^2 , spring p , axis c , with stop arm e , quantity wheel d , toothed wheel g , interposed spring clutch r , drum axis n , having worm n^3 , and radial arms n^2 , and supplementary stop O , O^3 , as set forth. 17th. The combination, with the throat of the coin slot, of an automatic gas meter prepayment attachment, of a jointed fraud prevention arm m , with turned end m^2 , as set forth. 18th. The combination, with the entrance or passage of the coin slot, of an automatic gas meter prepayment attachment, of a jointed lever s , worked from a stud d' , of the quantity wheel d , whereby no more coin than gas can be supplied for, can be inserted within the enclosing casing, as set forth. 19th. The combination, with the throat or slot of an automatic gas meter prepayment attachment, of an inverted entrance l' , as set forth.

No. 36,762. Wrench for Pipes. (*Clé à tuyau*.)

Philo. C. Blaisdell, Carrollton, New York, assignee of Andrew J. Curtis, Monroe, Maine, U.S.A., 5th June, 1891; 5 years.

Claim.—1st. A pipe wrench having a rigid jaw provided with a flaring slot or aperture, in combination with a sliding jaw having a similar slot, a lever pivoted in the slot of the sliding jaw and passing through the slot of the rigid jaw, and a nut for adjustably securing the same, substantially as specified. 2nd. The pipe wrench described, consisting essentially of the rigid jaw having a tapering slot, and a conical seat at the reduced end of said slot, the movable jaw having an eye to receive the rigid jaw, and also having a slot the pivoted connecting lever having one end pivoted in the slot of the movable jaw, and its opposite threaded end passing through the slot of a rigid jaw, the convex nut for adjustably securing the jaws to a lever, and the spring expanding the jaws, substantially as specified.

No. 36,763. Machinery for the Manufacture of Twine, etc. (*Machine pour la fabrication du cordonnet*, etc.)

The Dovercourt Twine Mills Company, of Toronto, assignees of Walter Herbert Avis, all of Dovercourt, Ontario, Canada, 5th June, 1891; 5 years.

Claim.—1st. In a twisting and laying machine for forming twine rope, &c., a vertical stationary twisting frame having a series of whirl hooks in tiers so arranged and operated that alternate hooks are adapted to rotate in opposite directions, the speed of the whirl hooks being regulated by cone pulleys vertical rotary posts with adjustable arms having grooves formed therein to receive and keep separate sets of strands after they have passed from a movable guide or parting frame which is adapted to move suspended from a vertical track, and on an under guide track, and has arms carrying a parting hook to receive the strands before and after being twisted, in combination with a movable laying frame suspended from an overhead track and moving on an under track, with or without a drag to regulate the tension on the cord during the process of formation, and having arms carrying whirl hooks to which the strands of the cord to be formed are attached, and adapted to rotate in a direction opposite to that of the whirl hooks from which the cord is formed on the twisting frame, and at a less rate of speed, the whirl hooks on the laying frame deriving motion from an endless rope driven from the end of the walk where the vertical twisting frame is located, the whole being arranged and operated to form twine, cord, rope, &c., substantially as specified. 2nd. The vertical stationary twisting frame A , having the series 15, 16, and 17, of cone pulleys arranged in the frame on spindles in "echelon" to receive the cord x, y, z , in combination with the coned wheel X , the friction or contact wheels 33, and 23a, whirl hooks h , and means for taking up the slack of the endless cord, the whole being arranged and the whirl hooks h actuated, substantially as described and specified. 3rd. The rotary post E , having arms E' , vertically adjustable, and having pivots at each end adapted to work in suitable holes formed therefor, and having grooves m , formed on said adjustable arms to receive the yarn attached to the whirl hooks, substantially as specified. 4th. The vertical parting frame C , adapted to move on the upper track J , the wheels q , brackets q^2 , the lower track B , coned wheels q^3 , arms C' , and C'' , and parting hooks n , fixed to said arms C' , arranged and operated, substantially as described and for the purpose specified. 5th. The vertical parting frame C , adapted to move on the upper track J , and lower track B , in combination with arms C' , parting hooks n , arm C'' , and grooved top 20, the whole being arranged and operated, substantially as described and for the purpose specified. 6th. The vertical parting frame C , adapted to move on the upper track J , and lower track B , in combination with arms C' , parting hooks n , and arm C'' , core head g , and spool p , the whole being arranged and operated, substantially as described and for the purpose specified. 7th. The core head g , fixed to the arm C' , in parting frame C , having central opening g^2 , through which the core from the spool is threaded, and having grooves formed thereon to receive the twisted strand to be twisted round the core, substantially as described and specified. 8th. The combination of the vertical movable

laying frame D , adapted to move on the grooved upper track J , and lower track B , with or without drag M , wheels 13, and brackets 35, attaching them to the laying frame wheels 14, wheel L journaled on said frame endless cord i , pulley L' , cord s , guide pulleys 1, and whirl hooks d , driven by cone pulleys K' , substantially as described and for the purpose specified. 9th. The combination in a vertical twisting frame A , of coned wheel X , coned pulleys 15, 16, and 17, arranged in "echelon" on said frame, contact pulleys 33, and 22a, and idler pulleys 31, whirl hooks h , springs 26, endless cord x, y, z , pulley 18, and vertically adjustable pulley 19, journaled on said frame, substantially as described and specified.

No. 36,764. Seal. (*Cachet*.)

Samuel Harry Thompson and Thomas James Cain, both of Cleveland, Ohio, U.S.A., 6th June, 1891; 5 years.

Claim.—In a sealing device, a disc or bolt having a central stud provided with a groove, a spring disc having a central hole and radial slits with cross slits and a slightly concave-convex surface combined and adapted to fasten envelopes and packages or lock nuts, substantially as and for the purpose specified.

No. 36,765. Stove Pipe. (*Tuyau de poêle*.)

William A. Kemp, Toronto, Ontario, Canada, 6th June, 1891; 5 years.

Claim.—A stove pipe section having a joint or locking member along each of its meeting edges, and having the said edges notched or cut away at one end, the said notches being in the form of a re-entering angle, whereby the said edges of the section are permitted to cross each other at or near the end of the said section, substantially as and for the purpose specified.

No. 36,766. Spike, Screw and Nail.

(*Crampons, vis et clous*.)

Albert H. Russell, Mount Washington, Hærbrouck O. Palen and William Edward Everest, both of Kansas City, all in Missouri, 6th June, 1891; 5 years.

Claim.—1st. A spike having two or more teeth which are an integral part of the same, said teeth extending at right angles with the body of the spike, substantially as set forth. 2nd. A spike having teeth extending at right angles with its body, said teeth terminating in a point, substantially as set forth. 3rd. A spike having teeth thereon, said teeth being in the form of a crescent their length extending laterally on said spike, substantially as set forth. 4th. A spike having teeth thereon, said teeth being thickest at their centre where they join the body of the spike and tapering to their points, substantially as set forth. 5th. A spike having teeth thereon, said teeth being thickest at the point where they join the body and tapering above and below to a point, substantially as set forth. 6th. A spike having teeth thereon, said teeth being in the form of a crescent where they join the body, their points being in the form of a segment, said teeth being beveled above and below in equal degree from the centre of the inside of the crescent to the point or outer portion of the segment, substantially as set forth. 7th. A spike having the teeth 1, head 12, having projections 17, and a point with the four beveled portions 9, substantially as set forth. 8th. A nail having a body, a head, a point, and teeth near the point extending outwardly from the body, substantially as set forth. 9th. A nail having a body, a head, a point, and beveled teeth extending outwardly from said body, substantially as set forth. 10th. A nail having a body, a head, a point, teeth on the body near the point and spiral wings on the body near the head, substantially as set forth. 11th. A screw having a body, a head, a point, and teeth extending outwardly from said body, substantially as set forth. 12th. A screw having a body, a beveled head 15, slot 16, in the head, and beveled teeth located near the lower end of said screw, substantially as set forth.

No. 36,767. Indicator for Offices.

(*Indicateur pour bureaux*.)

Rupert E. Kingsford, Toronto, Ontario, Canada, 8th June, 1891; 5 years.

Claim.—1st. An office indicator, comprising a cabinet, one end of which is closed by a single door adapted to be locked, and having in its opposite end a vertical row of apertures, the said cabinet having vertical rows of transparent spaces being headed by a number, in combination with removable rollers having indices on their periphery, said name plates and rollers being arranged to display the indices at the transparent spaces, substantially as and for the purpose specified. 2nd. In office indicators, the combination, with a casing provided on its front plate with numbers arranged in a vertical row, a door for closing one end of the cabinet, a lock for locking the same, an aperture for each number formed in the opposite end of the cabinet of a removable plate, and a removable roller arranged in line with the numbers, said plates and rollers having indices adapted to be viewed through transparent portions of the front plate, substantially as and for the purpose specified. 3rd. The combination, with the cabinet A , having apertures a^1 , in one end thereof, adapted to be closed, and a door A^1 , at the opposite end of the cabinet, the slotted uprights C, C' , and the bearing plate C^2 , arranged in the cabinet as described, said upright C , having bearings c^1 , formed at the ends c^2 , of the plates B , adapted to slide freely in the slots of uprights C, C' , and the rollers D , journaled in uprights C' , and bearing plate C^2 , one of the journals of said rollers extending into one of the apertures a^1 , substantially as and for the purpose specified. 4th. An office indicator, comprising a cabinet, one end of which is closed by a single door adapted to be locked, and having in its opposite end a vertical row of apertures, the said cabinet having vertical rows of transparent spaces in its front plate, each of said