

forth. 19th. In combination with the trip-bolt, a hardened face-plate upon the trip-stop, and means whereby it may be set in varying adjustments both vertically and angularly, substantially as described. 20th. The combination of the trip-stop, split or slotted from one end, the hardened face-plate mounted in a seat formed in the opposing arms at said end, and screws passing through both of said arms whereby they may be caused to clamp the face-plate in any desired adjustment. 21st. The combination, with the scale-rod and the trip-bolt, of the trip-stop transversely slotted at its butt end to take over said scale-rod, and provided with a set-screw to clamp it thereto in proper relation to the trip-bolt. 22nd. The combination in an automatic weighing machine, of a platform scale, a weighing receptacle seated upon a platform, thereof tripping instrumentalities for the discharge gate of said receptacle, blocked by a stop upon the scale-rod and released by the descent of the latter when the scale beam rises, and means for bracing and steadying the scale-rod against the transverse thrust of the tripping agent in contact with its stop. 23rd. A scale-rod, enlarged at the hooked end to fill the slot in the covering-plate of the base whereby said rod will be steadied against lateral play. 24th. The scale rod having a notch in the curve of its hook, combined with the bar over which said hook takes, adapted to fit into said notch, and steady the rod against the transverse thrust of the trip-bolt. 25th. The combination of the register, the link depending from the actuating arm, the cranked lateral arm from the main gate and the spring connection between said link and lateral arm. 26th. The combination of the slow-down gate, the curved screw-rod, from the covering plate of the delivery-spout, passing through a lug on the supporting frame, of said gate, the thumb-nut on said rod, and the set-screw threaded into said lug and adjustable toward and from said covering-plate. 27th. The combination of the feed hopper mounted upon a rod or support from the scale standard and the cut-off gate moving in the delivery-spout of said hopper, and pivoted in brackets from the weighing receptacle, substantially as described.

No. 17,611. Automatic Weighing Apparatus.

(Balance à bascule.)

John Stevens, Neenah, Wis., U. S., 15th September, 1883; 5 years.

Claim.—1st. In a machine for automatically weighing grain and other material, a buoyant presser-plate applied in the chute or spout through which the material is delivered to the weighing receptacle, and operated by suitable mechanism to diminish the flow of material as the equilibrium point is neared. 2nd. In a machine for automatically weighing grain and other material, a float or governor operated by the gradual accumulation of the contents of the weighing receptacle and actuating by its movement a cut-off or presser, in the delivery chute to diminish the stream passing therethrough as the charge nears its maximum. 3rd. The combination, with a float or governor suspended within the weighing receptacle and controlling a cut-off or presser, as described, of adjusting mechanism, whereby it may be moved vertically to compensate for changes in the predetermined amount to be weighed. 4th. The combination, with a float or governor suspended within the weighing receptacle and controlling a cut-off or presser for diminishing the flow of the incoming stream, of adjusting mechanism whereby it may be set in or out toward or from the point where the stream reaches the accumulating mass. 5th. The combination, with a buoyant presser-plate for diminishing the flow of grain and other material in a delivery spout, of an independent cut-off whereby said flow is completely stopped at the moment the discharge from the receptacle beneath takes place. 6th. The combination, with a grain-weighing receptacle and with the spout delivery thereto, of a buoyant presser-plate for diminishing the flow of material through said spout as the equilibrium point is neared and an independent cut-off whereby said flow is completely stopped at the moment the scale is actuated. 7th. The combination, with the discharge gate having a crank arm on its pivot, of a supplementary gate or valve having a cam arm or catch upon its pivot and operated by the weight of the stream as it descends from the first-named gate so as to throw its catch over a pin or anti-friction roll upon said crank arm and lock the discharge gate open. 8th. The combination, in an automatic weighing machine, of a platform scale, a weighing receptacle seated upon the platform thereof and tripping instrumentalities for the discharge gate of said receptacle stopped or dogged by the scale rod when in its position of rest and released by the descent of said rod as equilibrium is passed. 9th. The combination, with a discharge gate, of a positive-locking device to hold it close stopped or dogged by the scale-rod while the scale-beam is down and tripped or released by the descent of said rod when the beam rises. 10th. The combination, with a discharge-gate, of a positive locking mechanism which is tripped by the descent of the scale rod at the moment the scale is actuated and reset in position to again lock said gate by the action of the gate itself as it is urged open by the pressure of the charge. 11th. The combination, with the discharge gate, of locking and releasing mechanism and an adjustable stop on the scale-rod adapted to block or dog said mechanism to retain the gate closed until the descent of the rod as the scale is actuated. 12th. The combination, with the weighing apparatus, of the electric register in the mill-office, the button or contact point upon the scale-standard, the connecting wire and a lug upon the trip bolt whereby the circuit is completed to actuate the register by the movement of said bolt. 13th. The combination substantially as described, of the discharge gate, the pivoted trip-latch with its curved track and the trip-bolt. 14th. The combination substantially as described, of the discharge gate, the trip-latch, the trip-bolt and the stop on the scale-rod. 15th. The combination substantially as described, of the discharge gate, the trip-latch, the trip-bolt and its lug, the electrical button upon the scale-standard and the electrical register in the mill-office. 16th. The combination, with the trip-bolt, of the adjustable gate, as and for the purpose set forth. 17th. The combination, substantially as described, of the weighing receptacle mounted upon a platform-scale, the discharge gate, the trip-latch, the trip-bolt, the stop on the scale-rod and a suitable delivery spout. 18th. The combination, substantially as described, of the weighing receptacle mounted upon a platform-scale, the discharge gate, the trip-latch, the trip-bolt, the stop on the scale-rod, a hopper supported upon the scale-standard and the cut-off in said hopper-spout connected with the discharge gate. 19th. The combination, substantially as described, of the discharge gate,

its rock-shaft, the trip-latch, the arm ϵ 3, the cut-off in the delivery-spout and the link m 3 connecting said cut-off and arm. 20th. The combination, substantially as described, of the discharge gate, its rock-shaft, the crank-arm and pin on said rock-shaft, the secondary gate carrying a catch, the arm ϵ 3 also on said rock-shaft, the cut-off in the delivery-spout and the link connecting said arm ϵ 3 to an arm on the cut-off pivot. 21st. The combination, substantially as described, of the discharge gate, its rock-shaft, the trip-latch, the crank-arm and pin, on said rock-shaft, the secondary gate and its catch, the arm ϵ 3 also on said rock-shaft, the cut-off in the delivery-spout, and the link connecting said arm ϵ 3 with an arm on the cut-off pivot. 22nd. The combination, with the delivery-spout, of the buoyant presser-plate turned up at its end, as and for the purpose set forth. 23rd. The combination, with the cut-off at the end of the delivery-spout, of the buoyant presser-plate forming the cover to said spout. 24th. The combination, substantially as described, of the float, its supporting link or links hung loosely to the rock-shaft which supports the secondary cut-off, the segmentally-slotted ear fast to said shaft and the set screw passing through the slot and taking into the link. 25th. The pivoted trip-latch having a yoke to receive the head of the trip-bolt, a shoulder to lock the gate-arm and a curved trackway for the anti-friction roll on the end of said arm. 26th. The catch on the end of the supplementary gate-pivot having a re-entrant curve or pocket and a curved extension, as and for the purpose set forth. 27th. The adjustable stop upon the scale-rod, as and for the purpose set forth.

No. 17,612. Apparatus for Bathing, Vaporizing, etc. (*Bain à l'eau, à la vapeur, etc.*)

William W. Rosenfield, New York, N. Y., U. S., 10th September, 1883; 5 years.

Claim.—1st. The combination with an ordinary bath tub of a horizontal shower or spray pipe, extending nearly or quite the whole length of the tub, substantially as described. 2nd. The combination with an ordinary bath tub, of a detachable shower or spray pipe of nearly or quite the length of the tub, and means for supporting said pipe longitudinally of the tub in such a position that the shower or spray will fall upon a person recumbent in the tub, substantially as described. 3rd. The combination with a bath tub and its hot and cold water cocks 2, 3, of the detachable longitudinal shower pipe 10, flexible connecting pipe 12, siamese attachment and means for supporting said pipe 10 in an elevated position longitudinally of the tub, substantially as described. 4th. The combination with the closed liquid receptacle 27, of the air chamber 26, of a size substantially equal to or greater than that of the liquid receptacle, the two being connected by a passage as described, and a pipe as 34 affording free communication between the latter and the air above the liquid in the former, substantially as described. 5th. The combination, with the closed liquid receptacle 27, of the air chamber 26 of a size, substantially equal to or greater than that of the liquid receptacle, the pipe as 34 connecting the latter with the former at a point above the surface of the liquid and means for regulating the flow of the liquid, substantially as described. 6th. The combination with the induction pipe 6 and perforated discharge pipe 3, of the medicating or tincturing apparatus, substantially as described. 7th. The combination, with the induction pipe, and the perforated discharge pipe of the medicated or tincturing apparatus consisting of the receptacle 23, the air chamber 26 and the liquid receptacle 27 and their connections, substantially as described. 8th. The combination, with the induction pipe and the perforated discharge pipe, of the medicating apparatus, substantially as described, and the receptacle for receiving the drippings from said perforated discharge pipe provided with a cover as 44, having an opening as 45, substantially as described. 9th. The combination, with an ordinary bath tub, of a flexible cover as 17, provided with an opening as 18, a perforated pipe as 3 and means for connecting the same with the hot water cock, substantially as described. 10th. The combination, with an ordinary bath tub, of the longitudinally perforated pipe as 3, provided with a cock as 21 for shutting the water off from a part of the length, substantially as described. 11th. The combination, with an ordinary bath tub, of the flexible cover as 17, provided with the opening as 18, the perforated pipe as 3, and means for detachably connecting the same to the hot water cock, substantially as described. 12th. The combination, with the ordinary cock, of a bath tub, of the flexible connecting pipe and means whereby said pipe is detachably secured to said cock, substantially as described. 13th. The combination, with an ordinary bath tub and its hot water cock, of the perforated pipe 3, flexible connecting pipe 6 and means whereby said flexible pipe is coupled to said cock, substantially as described. 14th. The combination, with an ordinary bath tub and its hot water cock, of the perforated pipe 3, flexible connecting pipe 6, nipple 10, plain annulus 12 and annulus 15, substantially as described. 15th. The combination, with an ordinary bath tub and its hot water cock, of the perforated pipe 3 having cock 21, and the movable seat and foot rest 19, 20, substantially as described. 16th. The plain annulus 12, substantially as described, in combination with a plain surfaced pipe or crib of a cock.

No. 17,613. Educational Instrument.

(Instrument d'éducation.)

William Forrest, Bradford, Ont., 10th September, 1883; 5 years.

Claim.—1st. As an educational instrument, a series of discs pivoted on a common centre and having printed or otherwise marked on their surfaces, the letters of the alphabet, numerals, or other signs, the said discs being arranged so that they can each be turned on their common pivot independent of each other in order that the letters, or other signs, may be arranged into various combinations, substantially as and for the purpose specified. 2nd. A series of discs pivoted independently, but on a common centre, and having printed, or otherwise marked on them, the letters of the alphabet numerals, or other signs, in combination with an opening arranged to expose but one letter on each disc so that the letters, or other marks, when brought before the opening shall be read together, substantially as and for the purpose specified. 3rd. A series of discs each having a hole in its centre to fit loosely on to a hollow cylinder carried in a suitable frame and centrally divided by a collar fixed to a spindle fitted with-