

tion, with one or more keys, a series of levers, indicators and pinions, of devices for throwing the indicators out of connection with the levers, after the indicators have been operated by the movements of the keys, substantially as set forth. 8th. The combination, with the indicators and pinions, and with the operating levers and racks, of appliances for throwing the pinions and racks out of gear after the movement of the indicators, for the purpose specified. 9th. The combination, with the indicators, a series of keys to each indicator, and a series of levers for operating the indicators of appliances for throwing the indicators out of gear with the operating devices, when the latter are moved in one direction, substantially as specified. 10th. The combination, with the keys, a series of independent rack-levers, and indicators, of a frame supporting the indicators and adjustable to and from the said levers, substantially as set forth. 11th. The combination, with the series of operating rack-levers, the shaft a^2 , and indicators supported by said shaft a^2 , of a vibrating frame provided with edges bearing against the shaft and constructed to move the latter to and from the levers, substantially as specified. 12th. The combination, with the indicators, keys, and a series of levers acting upon the indicators, of a cross-bar, and means for moving the bar to restore the levers to their normal positions, substantially as specified. 13th. The combination, with the indicators, a series of independent operating rack levers, and series of keys of a cross-bar arranged to move the levers to their normal position after they have been lifted by the action of the keys, substantially as set forth. 14th. The combination, with the indicators and actuating levers and independent keys, of a frame carrying a cross-bar arranged to strike the actuating levers, and a handle connected to operate said frame, substantially as set forth. 15th. The combination, with the indicators and a series of independent rack levers, of a frame carrying a cross-bar for moving said levers and devices, whereby to throw the said indicators in and out of gear with the levers, substantially as specified. 16th. The combination, with the indicators, a series of independent keys to each indicator, and a series of independent intermediate connections, of a regulating device between the said connections, and the keys constructed to insure and determine the movement of the connections, substantially as set forth. 17th. The combination, with the indicators and a series of independent keys to each indicator, of a separate connection for moving each indicator, and a lock connected to be operated by each key of the series, whereby each connection is held in its operative position, substantially as set forth. 18th. The combination, with the series of keys, indicators and intermediate connections, of a lock for securing each connection, and connections between each key and the lock, whereby said lock is operated by each key of the series, substantially as specified. 19th. The combination, with the series of independent indicators, a series of keys in each indicator, and an operating lever to each series of keys, of a locking plate and connections between each key and said plate, substantially as set forth. 20th. The combination, with the indicators, keys operating connections and locks of stops, each connected to be operated by one of the keys and arranged to limit the movement of the operating connections, accordingly to the key depressed, substantially as specified. 21st. The combination, with the indicators, keys and operating connections, of a series of stops for limiting the movements of said connections, each connected to and movable by one of the keys, substantially as set forth. 22nd. The combination, with the operating lever, and a series of keys of a corresponding series, of stops arranged to limit the movements of the lever, and connections between each key and one of the stops, substantially as specified. 23rd. The combination, of the operating lever, carrying an arm, provided with a lip 2, a series of stops, and connections between the stops and keys, whereby any one of the stops may be thrown into the path of the lip, substantially as specified. 24th. The combination, with the operating lever and a series of keys, of a lock for securing the lever in its elevated position, a series of stops for limiting the downward movements of the lever, and connections between each key and the lock and one of the stops, substantially as specified. 25th. The combination, of a frame, having a stationary shoulder, the operating lever keys, notched bar, stops connected to be operated by the keys and a strip b^2 pivoted to the lever, constructed to engage with said stationary shoulder on the frame, and provided with a lip 2 arranged to engage with the stops, substantially as specified. 26th. The combination, with each indicator, and a series of keys to each indicator, of a series of independent, intermediate connections, of a spring for operating each connection to a limited extent, independently of the key, a detent, and means for releasing the latter to permit the connection on one indicator to move independently of the key, and operate its indicator when the adjacent indicator completes its revolution, substantially as specified. 27th. The combination, with the series of indicators, a series of keys and connections, of means for operating the latter upon the movement of any key or keys, the said connections being provided with parts capable of a limited movement, independent of the other as each indicator completes a revolution, and with means for releasing the latter, as each indicator completes a revolution, substantially as set forth. 28th. The combination, with a series of indicators, of a corresponding series of actuating devices and connections, whereby the actuating device of the indicator is moved one step, whether in motion or at rest, as the adjacent indicator completes its movement, substantially as set forth. 29th. The combination, with the series of indicators and series of keys, and series of independent actuating connections between the keys and indicators, of means, substantially as described, for turning each indicator one step, independently of the key action, as the next low indicator completes a revolution, substantially as described. 30th. The combination, with the indicators and keys of actuating levers, constructed to move the indicators under the action of the keys, and each lever consisting of two parts, one having a limited movement independent of the other, under action of a spring, a lock for holding the two parts in connection, and connections between the indicators and locks, whereby each movable portion is released to automatically actuate the adjacent indicator, as the next indicator completes its revolution, substantially as set forth. 31st. The combination, with the indicating disks and keys, of levers, each provided with a part geared with one of the indicators and capable of a limited movement to turn the latter, with a locking lever and connections between the latter, and the

adjacent indicator, substantially as and for the purpose set forth. 32nd. The combination, with the indicators of operating levers in two parts, and locking levers B^1 , B^2 , substantially as specified. 33rd. The combination, with a series of indicators, keys and intermediate connections, of one or more additional series of indicators, and means for throwing either series into connection with the operating devices, substantially as set forth. 34th. The combination of a series of indicators, a series of keys in each indicator, and connections whereby each indicator may be set by the action of any key of one series, and a device for restoring the connections to their normal positions at the will of the operator, substantially as set forth. 35th. The combination, with the series of keys, of two or more registering devices, each consisting of a series of numbered indicators, and series of intermediate independent operating connections, and means for turning the registering devices to bring either one of the same into connection with the operating devices, substantially as set forth. 36th. The combination of a series of indicators and operating keys, and connections for moving said indicators and operating appliances, independent of the keys and indicators, whereby each indicator is moved one step by said appliances, independently of the keys, as the adjacent indicator completes its revolution, and devices, operated by the indicators for throwing said appliances into action, as each indicator completes its revolution, substantially as described. 37th. The combination, with two or more series of keys, of a series of printing indicators and independent connections, whereby each indicator is controlled by each key of one of the series, and means for throwing the indicators out of gear with the connections, substantially as set forth. 38th. The combination, with the series of keys and registering device operated therefrom, of an independent printing recorder and connections, whereby the latter is moved from the same keys and to the same extent as the said registering device, and means for throwing each register out of gear with the connections, substantially as described. 39th. The combination, with the series of disks provided with lateral pins, of levers B , racks hung to said levers and locking levers B^1 and spring c^1 , substantially as described. 40th. The combination of the disks, provided with pins a^2 , levers carrying racks pivoted thereto, springs c^1 , locking levers B^1 and levers B^2 , substantially as described. 41st. The combination, with the register and the recorder, of levers, each carrying two series of racks capable of independent movement, one gearing with the register and the other with the recorder and rack-operating devices, substantially as described. 42nd. The combination, with the levers B , carrying racks pivoted thereto and locking levers B^1 , of two adjustable registers and levers B^2 , constructed to operate with the disks of each register, substantially as described. 43rd. The combination of the keys, indicating register, intermediate connections, and printing recorder frame B^2 , carrying the same, and toggle levers d^3 , d^4 , substantially as described. 44th. The combination, with the independent keys arranged in series, and indicators and connections, of levers d^2 , slotted plate c and rods d connected to the levers and having terminal stops, substantially as described.

No. 35,596. Feed Box for Cattle. (*Crèche*.)

James Fleury and Arthur O'Leary, both of Lindsay, Ontario, Canada, 10th December, 1890; 5 years.

Claim.—A combination feed box, consisting of the compartment B, the feed box A connected therewith, and the slide or shut-off C, all formed, arranged and combined, as and for the purpose hereinbefore set forth.

No. 35,597. Washing Machine.

(*Machine à blanchir*.)

Leonidas Clay Branch, San Francisco, and William L. Morrow, Stockton, assignees of Enos Churchill, all of California, U.S.A., 10th December, 1890; 5 years.

Claim.—1st. The rocking or oscillating containing-vessel A, having its interior space contracting to each end, and an air-chamber a opening out of and rising above said ends, and in which the air is compressed by the movement of the vessel's contents, substantially as described. 2nd. The combination of the rocking or oscillating containing-vessel A, having its interior space contracted toward each end, and provided with a cap-controlled entrance opening in its top center, upwardly turned ends forming air chambers a , whereby air is compressed in said chambers by the action of the vessel's contents, the handle for rocking said vessel, and the assisting spring beneath the bottom of the vessel, substantially as described. 3rd. The rocking or oscillating containing-vessel A, having its interior space contracted toward each end, and its ends upwardly turned, forming air chambers, and a ridge formed across the bottom of the interior of the vessel, whereby the clothes are retarded, substantially as described.

No. 35,598. Car Wheel. (*Roue de chars*.)

William Hailes, John B. Thacher and George H. Thacher, all of Albany, New York, U.S.A., 10th December, 1890; 5 years.

Claim.—1st. A cast metal car wheel, which has a web or wall portion, as D, provided with the circular series of corrugations d , d' , alternating and having their projections and depressions extended substantially radially from the hub towards the plain web portion C, neighboring the rim and integral with said hub and web portion C, substantially as and for the purposes set forth. 2nd. A double plate or cast metal car wheel, which has one of the web plates or wall portions, as D, of the chamber E, provided with the circular series of corrugations d , d' , which alternate and have their projections and depressions extended substantially radially from the hub towards the web C, neighboring the rim and are integral with the said hub, its opposite side plate or wall of said chamber E and the web C, substantially as and for the purposes set forth. 3rd. A double plate or hollow cast metal car wheel, which has both wall sections D and D', of the chamber E, provided each with a circular