No. 33,648. Combined Strawberry - Vine Cutter and Cultivator. (Cisailles de framboisier et cultivateur combinés.)

George W. Love, Grayling, Mich., U.S., 10th February, 1890; 5 years. George W. Love, Grayling, Mich., U.S., 10th February, 1890; 5 years. Claim.-1st. In combination with the frame A, the transporting wheel, the stationary forked outting blade H¹, the double edged cut-ions to the double edged cutting blade, and handles attached to the In a device for the purposes specified, the combination of the frames, the purpose specified, the combination of the frames the purpose specified, the transporting wheels, the double edged cutting blades H, the mechanism coupling the shades H to the pinions P, the cultivators attached to the frame A, and handles for a guiding the machine, as and for the purposes specified.

No. 33,649. Bolt. (Boulon.)

Charles J. Langenbach, Dorchester, Iowa, U.S., 10th February, 1890; 5 years.

Claim.-The combination, with the operating cord or wire having its ends connected to the oppositely arranged spring locks or boils, spring locks or boils of the knob plate, guide stude, spindle and recessed and apertured knob disk and knob, constructed and combined to operate in the manner and for the purpose substan-tially as herein shown and set forth. its

No. 33,650. Spindle Driving Device for Spinning Machines. (Appareil de commande des bobines de machines à filer.)

James Clark and Frederick Thornton, Bullock's Corners, Ont., 10th February, 1890; 5 years.

Claim.- In a spindle driving device for spinning machines, an elongated driving cylinder (3 an endless band I, the series of spindles F, in combination with the adjustable spiral tension spring A, ten-sion guard B, spring tension runners c and c' guard support D and the band support E, substantially as and for the purpose herein-before set forth.

No. 33,651. Axe. (Hache.)

John M. Holladay, Holladay, Va., U.S., 10th February, 1890; 5 years.

Years. Claim.—1st. The combination, with an axe-bead terminating in a web and opposite semi-circular dovetailed recesses, of a bit term-inating in opposite diverging semi-circular dovetailed plates adapted to enter the recesses and forming an intermediate space for the web of the head, and a securing pin inserted through openings in the plates and webs, substantially as specified. 2nd. The combination, with an axe-head having a central web and opposite curved recesses, of a removable reversible bit, the rear ends of which terminate in opposite curved divergent plates mounted in the recesses and having an intermediate opening for the reception of the web Perforations formed through the plates and web, and a removable rivet inserted in the openings, substantially as specified. 3rd. The combination, with an axe-head having a central web and laterally-opposite dovetailed semi-circular recesses terminating in shoulders, of a removable reversible bit, the rear end of which is bifurcated to receive a web and to form opposite semi-circular bevel edged plates for inserting in the recesses, said plates terminating a their oppo-site ends in recesses having abutting ends for the reception of the shoulders of the head openings, substantially as specified.

No. 33,652. Wheel. (Roue.)

George W. Howell, Covington, Ky., U.S., 10th February, 1890; 5 vears.

Claim-lst. The hub of a wheel composed of the solid sleeve 3 and split sleeve 4, and disks 5 to which the spokes of the wheel are screwed, substantially as specified. 2nd. The hub of a wheel com-posed of the split sleeve 4, the solid sleeve 3 provided with lugs 7, for spreading the split sleeve and abutting against the disk to hold the wheel in the strained position, substantially as specified. 3rd. A wheel composed substantially of the hub formed of the solid sleeve 3, the split sleeve 4, and the disks 5 provided with slots into which the spokes 2 are hooked, and the parts secured together by the detachable sleeve 3 having lugs 7, substantially as specified.

No. 33,653. Manufacture of Buckets and Tubs. (Fabrication des seaux et cuvetles.)

John L. Krauser, Leeper, Penn., U. S., 10th February, 1890; 5 years.

Claim.-1st. Claim.—1st. A stave for a tub or bucket made of wood and having the grain running crosswise or in the direction of the width of the stave, substantially as specified. 2nd. A bucket or tub composed of the wood extending crosswise thereof, and in the direction of their width, substantially as specified.

No. 33,654. Electrically Controlled Elevator. (*Mente-charge* contrôlé par l'électricité.)

Otis Brothers & Company, (assignces of Charles E. Ongley), New York, N. Y., U.S., 10th February, 1890; 5 years.

Provide the elevator mechanism to close the orient to deal to mark the elevator mechanism of controlling its movements. of electron magnet for elevator mechanism, a circuit closer 14 or the elevator mechanism to close the orient through said magnet, when the car is in motion, and to be which atting said controlling mechanism, a circuit closer 19 operated by a more provide directions, a circuit closer 19 operated by a more provide directions, a circuit closer 19 operated by a more provide directions, a circuit closer 19 operated by a more provide directions, a circuit closer 19 operated by a more provide directions, a circuit closer 19 operated by a more provide directions, a circuit closer 19 operated by a more provide directions, a circuit closer 19 operated by a more provide directions, a circuit closer 19 operated by a more of said magnets when the car is a treat, substantially as described. At the combination, with a close the circuit through said to directions, circuit closer 19 operated by a more of said magnets when the car is a treat, substantially as described. 4th the combination with a closer the circuit through and of said magnets when the car is a treat, substantially as described. 4th the combination, with a closer 14 or the circuit through one of said magnets when the car is a treat, substantially as described. 4th the combination, with a closer 14 or the circuit through one of said magnets, a direction chart is the circuit through one of said magnets, a direction chart is the circuit through the circuit through one of said magnets, and a circuit closer 10 operated by a more provide directions, circuit closer 10 operated by a more provide direction, circuit closer 10 operated by a more operated by a more provide direction of the closer 10 operated by a more operated by a more provide direction operated by a more operated by a magnet, and a circuit closer 10 opera

No. 33,655. Elevator. (Monte-charge.)

Otis Brothers & Company, (assignees of Charles E. Ongley), New York, N. Y., U. S., 10th February, 1890; 5 years.

N. Y. U. S., 10th February. 1890; 5 years. Claim.—1st. The combination, with the mechanism for control-ling the movements of an elevator, of the cylinder F² and piston F¹ for operating said mechanism, an auxiliary valve for controlling said piston, which is normally maintained in position to allow the water to flow out of the cylinder, a piston for operating said auxil-iary valve, and a primary valve for controlling said last piston, sub-stantially as described. 2nd. The combination, with the mechanism for controlling the movements of an elevator, of the cylinder F² and pitton F², for operating said mechanism, and suxiliary valve for con-trolling said piston, which is normally maintained in position to allow the water to flow out of the cylinder, a piston for operating said auxiliary valve, a primary valve for controlling said last piston and a permanently open exhaust between said last piston and said primary valve, substantially as described. 3rd. The combination, with the mechanism for controlling the movements of an elevator,