wheel, and pitman, having arms arranged to alternately engage the opposite sides of said wheel as the pitman is reciprocated, substantially as set forth. 4th. The combination of the toothed wheel, the disks on opposite sides of said wheel and arranged to project to form keeper flanges alongside the wheel, the pitman having its arms toothed to engage the wheel, and alternately engaged with the opposite sides thereof as the pitman is reciprocated, substantially as set forth. 5th. The combination of the shaft, the fixed fly wheel on the shaft, the disk D, the toothed wheel, the disk E, the fly wheel threaded on the shaft up against the disk E, the pitman having upper and lower arms arranged to alternately engage opposite sides of the wheel as the pitman is reciprocated, and devices by which the said arms may be alternately held in engagement with the wheel, all substantially as set forth. 6th. The combination of the wheel, the pitman having arms engaging the opposite sides of said wheel, and provided with a lug or portion J, and the guide rail or plate K, arranged to receive the bearing of the said lug or portion, substantially as described, whereby the arms of the pitman may be alternately held in engagement with the wheel, as and for the purpose set forth. 7th. The combination of the toothed wheel, the pitman having arms arranged to alternately engage opposite sides of the wheel as the pitman is reciprocated, the guide plate K, a lug J, on the pitman arranged to bear above and below said rail in the reverse movements of the pitman, and a bearing M, arranged for engagement by the pitman, substantially as and for the purposes set forth.

No. 34,896. Collapsible Railway Car. (*Moyens d'empêcher les collisions des chars de chemin de fer.*)

Louis C. Zolk, Bowling Green, Kentucky, U.S., 22nd August, 1890; 5 years.

Claim.—1st. A collapsible railroad car, comprising an outer section closed at its rear end, and an inner longitudinally sliding section likewise closed at its rear end and acting as a piston or buffer in the outer section, substantially as set forth. 2nd. A collapsible railroad car, comprising an outer box-like section having an inwardly extending annular flange at its open front end, and a longitudinally sliding section having an outwardly extending flange at its rear end, substantially as set forth. 3rd. In a collapsible railroad car, the combination of an outer box-like section having a narrow V-shaped slot in its bottom, and a longitudinally sliding section having a closed rear end, substantially as and for the purpose set forth. 4th. In a collapsible railroad car, the combination, with the outer box-like section having interiorly arranged longitudinal grooves, of the longitudinally sliding section having guide rails to engage said grooves, substantially as set forth. 5th. In a collapsible railroad car, the combination with the collapsible sections, of a catch or device to prevent said sections from collapsing or telescoping together under normal conditions, substantially as set forth. 6th. In a collapsible railroad car, the combination, with the collapsible sections, of a catch pivoted in a slot in one section, and having a cam shaped projecting head adapted to bear against the other section, and provided with a downwardly extending shank having a weight at its lower end, substantially as and for the purpose set forth. 7th. In a collapsible railroad car, the combination, with the collapsible sections having solid rear ends, of the spring cushions mounted upon the adjacent faces of said rear walls, substantially as and for the purpose set forth. 8th. In a collapsible railroad car, the combination, with a closed box-like outer section, of a longitudinally sliding inner section having a solidly closed rear end, access to which may be had through a door or doors at the front end, substantially as and for the purpose set forth. 9th. In a collapsible railroad car, the combination of the box-like outer section mounted upon trucks and having an inwardly extending flange at its open front end, the longitudinally sliding section having its front ends supported upon trucks and provided at its rear end with an outwardly extending flange, a pivoted catch to prevent the sections from collapsing under normal conditions, a slot in the bottom of the outer section for the escape of compressed air, and spring cushions or buffers upon the adjacent faces of the rear walls of the said collapsible sections, substantially as and for the purpose set forth.

No. 34,897. Windmill Tower.

(*Charpente de moulin à vent.*)

Charles Bingley Putnam, Marion, Iowa, U. S., 22nd August, 1890; 5 years.

Claim.—1st. In combination, with a superposed wind wheel frame turning in a horizontal plane and having a depending pivot, an annular turn-table casting, having vertical cells open at bottom, and corresponding drilled and tapped bosses, provided with set screws, and converging corner posts having vertical upper extremities fastened in the respective cells by said set screws, substantially as hereinbefore specified. 2nd. The combination in a windmill tower, of converging corner posts having vertical upper extremities, an annular turn-table casting, having vertical cells fitted to said post extremities, and set screws fastening the latter in said cells, a superposed wheel-frame casting, having a depending pivot, an annular casting having radial arms, with concave outer ends fitted to the posts within a converging portion of the tower, and a collar fastened on said pivot below the casting last named, substantially as hereinbefore specified. 3rd. The combination of the corner posts A, turn-table B, wheel frame casting C, tubular pivot D, collar E, casting F and band G, substantially as hereinbefore specified.

No. 34,898. System and Apparatus for Protecting Railway Trains. (*Appareil pour proteger les chars de chemin de fer.*)

William H. Rushforth, Rutherford, N.J., U.S. (assignee of Virgil A. Krepps, Kensico, N.Y., U.S.) 23rd August, 1890; 5 years.

Claim.—1st. The method of protecting railway trains by electrically signalling to a given point the fact of a stoppage, from two other points, one adjacent to the front and the other to the rear of the train, substantially as set forth. 2nd. The method of protecting railway trains by electrically signalling the fact of a stoppage from two points, one adjacent to the front and the other to the rear of the train, to another given point, and there recording such signals. 3rd. The combination, with the main line circuit, of an electrical system of a set of instruments, consisting of a call box, a sounder and a switch, with an electrical circuit from the latter through the call box and sounder, and a spring, whereby the switch is normally held in position to cut out the call box and sounder and complete the main circuit, but when the spring is depressed will shunt the circuit through said call box and sounder, substantially as set forth.

No. 34,899. Table. (*Table.*)

Edwin Harrison, Strathroy, Ont., Canada, 25th August, 1890; 5 years.

Claim.—1st. A combination table and writing desk, having a hinged drop rail desk, and compartments forming pigeon holes on either or both sides of said desk, substantially as and for the purpose hereinbefore set forth. 2nd. In combination, table top *a*, drop rail B, drawer C, the top of which forms a writing desk and compartments D, substantially as set forth.

No. 34,900. Cornice and Self-Mitring Moulds. (*Corniche et moule à onglet automatique.*)

Lauson Lightheart, Strathroy, Ont., Canada, 25th August, 1890: 5 years.

Claim.—A pair of cornice and mitring moulds, consisting of mould plate or pattern D, attached to face plate B, which is attached angularly on the shoe A, and having the brace or handle C connecting the back of face plate to upper side of shoe, arranged and operated substantially as shown and specified.

No. 34,901. Attachment for Feed Water Injectors. (*Appareil pour injecteurs à eau d'alimentation.*)

Columbus Phillips, Birmingham, Ala., U. S., 25th August, 1890; 5 years.

Claim.—1st. The combination, with a boiler of a chamber G, adapted to receive feed water from an injector secured to the boiler above the water line, and opening through its bottom directly into the boiler and provided with check valves between it and the injector, a valve within said chamber adapted to fit into the opening between the chamber and the boiler to shut off the steam from the boiler, and means for operating said valve from the outside, substantially as set forth. 2nd. The combination, with a boiler, of a chamber G, adapted to receive feed water from an injector secured to the boiler above the water line, and provided with check valves discharging against each other, as and for the purpose specified. 3rd. The combination, with the boiler of a chamber communicating directly through its bottom with the steam space in the boiler secured thereto, and provided with check valves through which said chamber is adapted to communicate with an injector, and a sparkblower connected with the chamber, substantially as described.

No. 34,902. Umbrella Stand.

(*Porte-parapluie.*)

George R. Davis, St. John, Canada, N.B., 25th August, 1890; 5 years.

Claim—An improved, convenient and cheap umbrella stand, consisting of a frame A, bearing B, ring C, pan D, substantially as and for the purpose hereinbefore set forth.

No. 34,903. Evaporating Apparatus.

(*Appareils evaporatoires.*)

Ross Jones Hoffman, Binghamton, N. Y., U. S.. 25th August, 1890; 5 years.

Claim.—In combination, with the still for treating hydrocarbon oils, a steam pipe within said still arranged to substantially cover the surface exposed to the heat, the said pipe being placed close to said surface, and being provided with discharge orifices opening directly against the said surface, whereby the jets of steam are caused to impinge directly on the surface to be protected, as and for the purpose set forth.

No. 34,904. Two-Wheeled Vehicle.

(*Voiture à deux roues.*)

Alvin J. Glick, Millersville, Ill., U.S., 25th August, 1890; 5 years.

Claim.—1st. The combination of the carriage spring secured to and projecting forward from the axle, the body and the bracket secured to the bottom of the body, projecting forward therefrom, and having its front end pivoted to the front end of the spring, as set forth. 2nd. The combination of the spring, the body, the bracket secured to the body and pivoted to the spring, the brace secured to the body, and the link extending between the body and the spring, as set forth. 3rd. The combination of the spring, the shafts, the clips secured to the shafts and the spring, the clip plate thereof having a perforated lug, the T-shaped brace secured to the body, the link extending between said brace and the said perforated lug, and the bracket secured to the body and pivoted to the spring, as set forth.