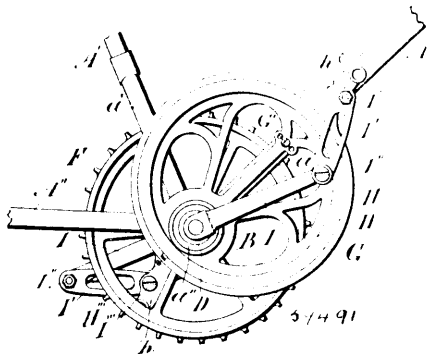


set forth. 2nd. In a velocipede gear, the combination of a driving shaft or axle, crank arms secured to the ends of said axle projecting

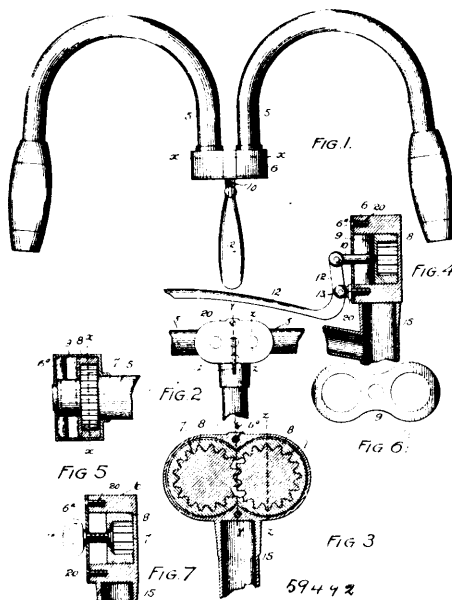


from its bearings, a link pivoted to the end of each of said cranks, a pivot bolt fixed in said link and turning on balls in the crank, a pedal arm forming part of an excentric strap, a pivot pin in said arm rotating upon balls and fixed in the other end of said link and an excentric through which said axle projects and upon which said strap is mounted rotatively, substantially as set forth. 3rd. In a velocipede gear, the combination with the driving shaft or axle, of the rear fork and forked frame bars formed into hubs adapted to carry bearings for said axle, bearings in the eyes of said hubs supporting said axle, a sprocket wheel mounted and secured upon said axle between said bearings, an excentric secured to the outer part of each hub having its geometric centre formed to and upward of said axle, a strap mounted rotatively upon said excentric balls between the bearing surfaces of said excentric and strap, a pedal arm formed on said strap, a pedal on said arm, a crank secured to each of said axles projecting through said excentric and a link connecting the end of said crank to said pedal arm, substantially as set forth. 4th. In a velocipede gear, the combination of a circular disc secured to the frame excentrically to the axle and the latter passing through the former, a V groove in the face of said excentric, a strap or rim adapted to be mounted upon said excentric and being internally screw-threaded, a pair of rings externally screw-threaded and screwed into said rim and having their inner corners bevelled off to form a V groove corresponding to the V groove in the excentric, a side flange on each ring and a corresponding check or rabbet on each side of the disc rim receiving said flange rotatively, balls in said V groove, a transverse key bed in the outer rim, a gib of soft metal in said key bed and a set screw in said rim adapted to press said gib into the threads of the rings and secure the same against displacement, substantially as set forth. 5th. In a velocipede gear, the combination with the driving shaft or axle, of the front brace and seat column both formed into wide arched forks and the two times of the two pieces on each side formed with the corresponding bar of the rear fork into a hub with lateral outward projection forming a continuation or extension thereof and adapted to have a large eye for the reception of the axle and journal, a journal within each of said eyes supporting said axle and a circular disc mounted excentrically upon each of said lateral hub extensions, substantially as set forth. 6th. In a velocipede gear, the combination with the driving shaft or axle, of the rear fork and forked frame bars formed into hubs each having a large eye, V grooved cups secured upon said axle within said eyes, V grooved cups secured into said eyes each consisting of two rings having their inner corners bevelled and their inner faces clearing, a clutch consisting of a flanged nut with circular barrel screwed upon said axle with its barrel face tight against the inner face of one of said cups and its face provided with lugs, a sprocket wheel mounted upon said axle and having circular slots adapted to engage said lugs, and a nut screwed upon said axle against the inner face of said sprocket wheel, substantially as set forth. 7th. In a velocipede gear, the combination with the driving shaft or axle, of the front brace and seat column both formed into a wide arched forks each having one time further from the centre of the main piece than the other and the two times of the two pieces on each side formed with the corresponding bar of the rear fork into a hub adapted to have a large eye for the reception of the axle journal therein, bearings for said axle in said hub and a sprocket wheel mounted and secured upon said axle between the two bearings, substantially as set forth. 8th. In a velocipede gear, the combination with the driving shaft or axle, of the rear fork and forked frame bars formed into hubs adapted to carry ball bearings for said axle, ball bearings formed with grooved cones carrying balls upon the axle and grooved cups in two sections screwed into said hubs, a transverse slot or key bed in each hub, a gib of soft metal in said key bed and a set screw passing through said hub and impinging upon said gib to secure said cup, substantially as set forth. 9th. In a velocipede gear, the combination with the driving shaft of the rear fork and forked frame bars formed into hubs adapted to carry ball bearings formed with grooved cones carrying balls upon the axle and grooved cups in two sections screwed into said hubs to flush and finish their outer

faces, and set screws passing through said washers and binding on the cups, substantially as set forth. 10th. In a velocipede gear, the combination with the driving shaft or axle, of the rear fork and forked frame bars formed into hubs adapted to carry bearings for said hubs supporting said axle, a sprocket wheel mounted and secured upon said axle between said bearings, a circular disc secured to the outer part of each hub excentrically to said axle and with its long axis forward and upward, a V groove in the face of said disc or excentric, a strap mounted rotatively upon balls in the groove of said excentric and consisting of an internally threaded rim having externally threaded rings screwed into it which form a V groove between them, a pedal arm formed on said rim adapted to carry a treadle having a path of rotation concentric with said excentric disc and excentric to said axle, substantially as set forth.

#### No. 59,492. Bicycle Handle Bar.

(Barre de poignée de bicyclette.)



Amos V. Green, John G. Morgan and Lyman B. H. Brown, all of Denver, Colorado, U.S.A., 2nd April, 1898; 6 years. (Filed 4th March, 1898.)

*Claim.*—1st. The combination with a suitable casing attached to a depending stem adapted to be connected with the post of a bicycle fork, of the two distinct handle bars journaled in said casing, the said bars being provided with meshing pinions, a movable locking rack located within the casing and forming a housing for the pinions, said rack being interiorly cogged to engage the cogs on the peripheries of the meshing pinions, and suitable means for actuating said rack. 2nd. The combination with a suitable casing, of two distinct handle bars journaled therein, and provided with meshing pinions, a spring held movable locking rack located in said casing and forming a housing for the pinions, said rack being interiorly cogged to fit the peripheries of the pinions which are normally engaged by the rack, and suitable means for shifting the rack sufficiently to unlock the pinions. 3rd. The combination with a suitable casing, of two distinct handle bars journaled in said casing and carrying meshing pinions, a movable spring held locking rack forming a housing for the pinions and interiorly cogged to fit their peripheries, which are normally engaged by the rack, and a lever fulcrumed on the casing and connected with the rack for lifting the ladder. 4th. The combination with a suitable casing, of two distinct handle bars journaled in said casing and carrying meshing pinions, a movable rack located in said casing and shaped like the figure eight, said rack forming a housing for the pinions and being interiorly cogged, whereby it is adapted to fit the cogged peripheries of the two meshing pinions, and suitable means for actuating said rack.

#### No. 59,493. Case. (Caisse.)

James M. Davis, assignee of Adellbert Ellsworth Foutch, both of New York City, U.S.A., 2nd April, 1898; 6 years. (Filed 9th March, 1898.)

*Claim.*—1st. The herein described case, consisting of a body and a cover, each in the shape of a book or books, the plane of division between the cover and the body coinciding with the plane of divi-