(No Model.) 3 Sheets—Sheet 1.

J. M. GOLDERER.

VELOCIPEDE.

No. 455,438. Patented July 7, 1891.

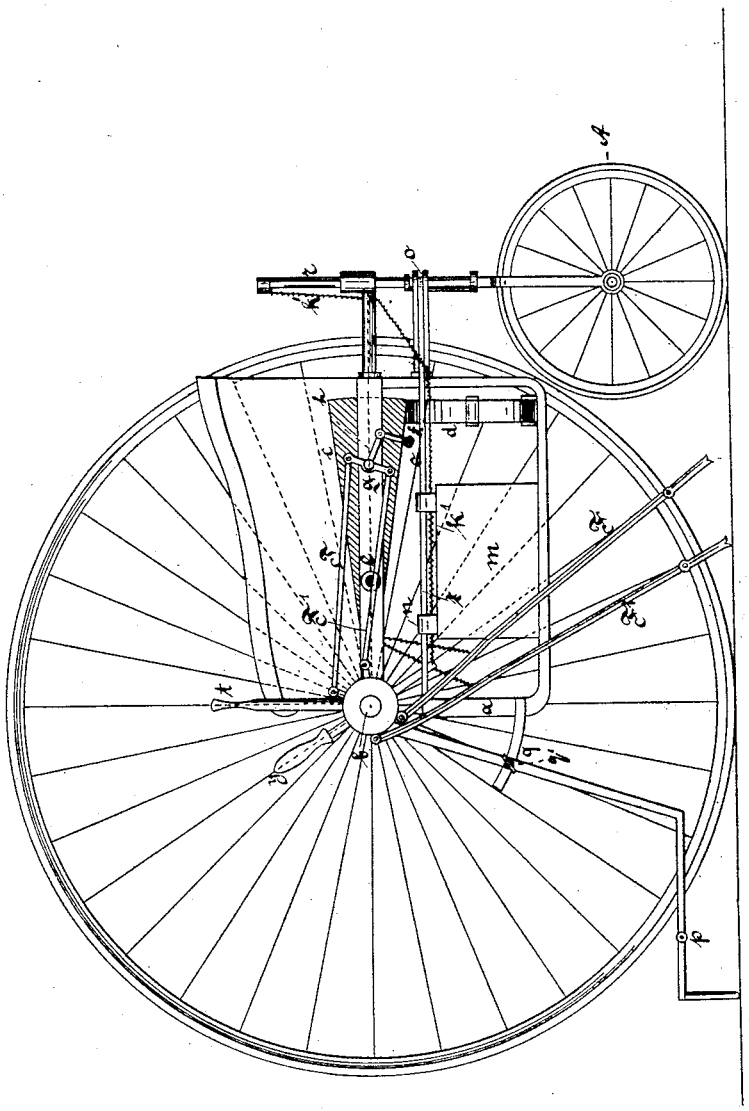

Fig. 1.

Witnesses:
T. J. Coan.
H. Jonghmans.

Inventor:
J. M. Golderer
by his attorneys
Roberts & Briesen

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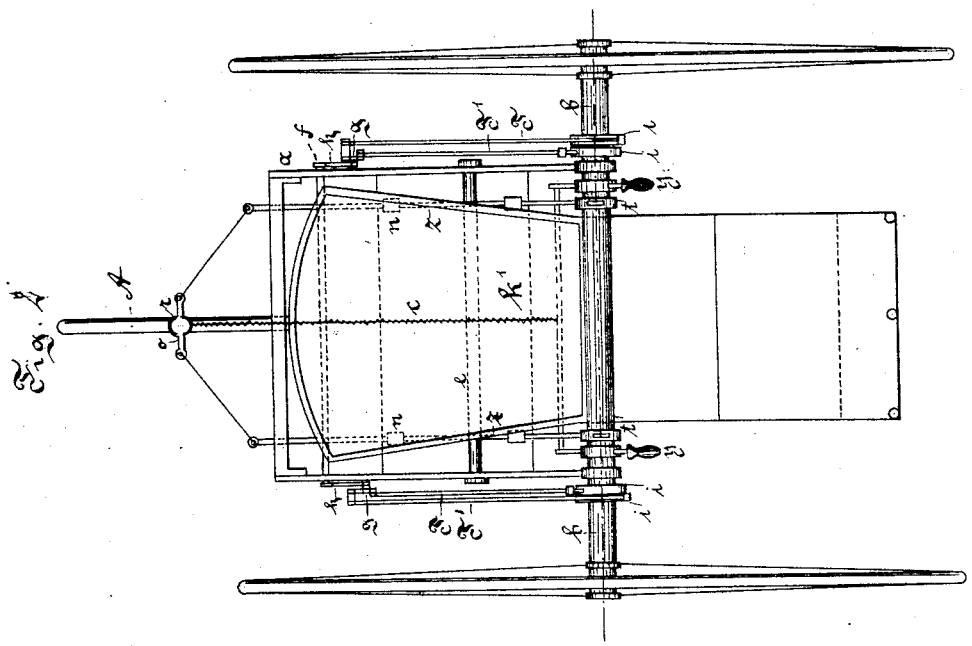

Witnesses:
T. J. Coan.
A. Joughmans

Inventor:
J. M. Golderer
by his attorneys
Roeder & Briesen

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J. M. GOLDERER.

VELOCIPEDE.

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Fig. 5

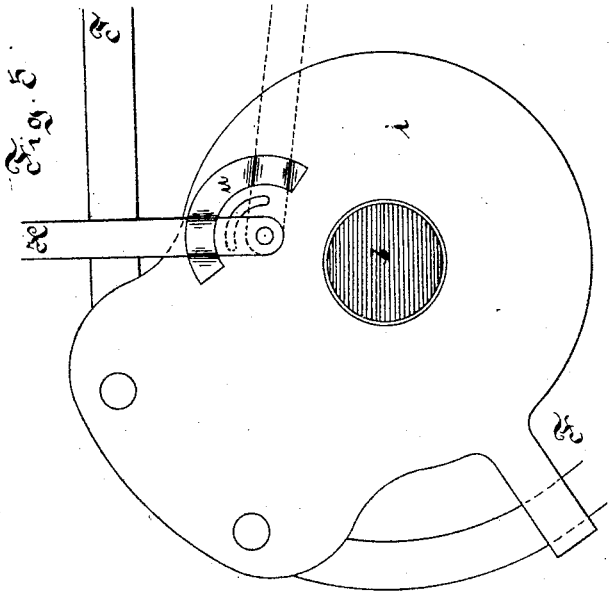


Fig. 6

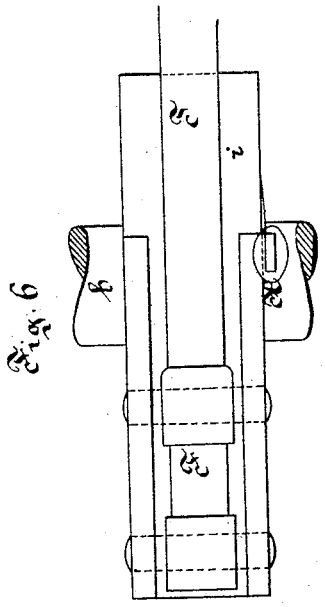


Fig. 3

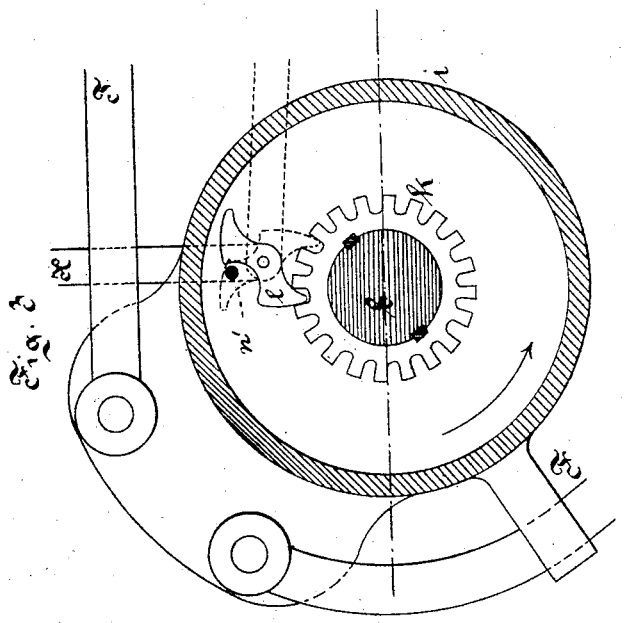
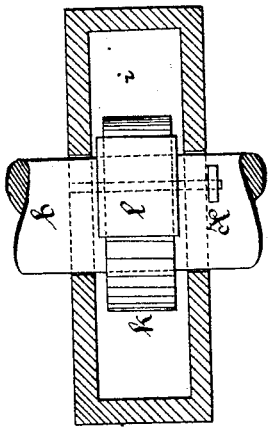


Fig. 4



Witnesses:
T. J. Coan.
H. Honglmann

Inventor:
J. M. Golderer
by his attorneys
Roeder & Brenn

UNITED STATES PATENT OFFICE.

JOHANN M. GOLDERER, OF STRAUBING, GERMANY.

VELOCIPEDE.

SPECIFICATION forming part of Letters Patent No. 455,438, dated July 7, 1891.

Application filed January 27, 1891. Serial No. 379,347. (No model.)

To all whom it may concern:

Be it known that I, JOHANN MATHIAS GOLDERER, a resident of Straubing, Bavaria, Germany, have invented certain new and useful Improvements in Velocipedes, of which the following is a specification.

This invention relates to a tricycle that is propelled by an up-and-down motion of the trunk of the rider.

The invention consists in the various features of construction more fully pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of my improved velocipede. Fig. 2 is a top view thereof; Fig. 3, a detail longitudinal section through box *i*. Fig. 4, a detail transverse section of the same; Fig. 5, a side view, and Fig. 6 a top view thereof.

The letter *a* represents a chair provided with seat *c* and a suitable baggage-receptacle *m*. The seat *c* turns in the front around a shaft *e*, and is supported at the rear by a spring *d*. The seat *c* engages rod *f*, connected to elbow-levers *h*, that turn around fulcrums *g*. The levers *h* are connected to a pair of draw-bars T T′, the forward ends of which are pivoted to boxes *i*, that are free to oscillate on the main axle *b*. To the boxes *i* there are pivoted the double-pointed clicks *l*, the motion of which is limited by stops *n′*, that engage the ratchet-wheels *k*, fast on shaft *b*. If the rear portion of seat *c* is depressed by a corresponding motion of the body of the rider, the rods *f* oscillate elbow-levers *h*, and the latter by rods T revolve boxes *i*. In this way the clicks *l*, secured to the boxes, push the ratchet-wheels *k* forward to propel the vehicle. When the rider raises his body to release the seat, the spring *d* throws the latter up and the rods T′ will now propel the vehicle.

The machine is steered by rods Z Z, passing through eyes *n* of box *m*. The front ends of these rods are connected to levers *t*, that embrace axle *b*, while the rear ends of the rods are connected to the cross-bar *o* of the steering-wheel A. If one of the levers *t* is oscillated forward and the other lever is oscillated backward, the steering-wheel is turned.

On riding over a grade it is desirable to have the wheel A adjustable vertically. To this effect its post *r* is by chain *k′* connected to two levers *y* free to revolve around axle *b*. By turning the levers in one direction the wheel A is raised, and by swinging them in the other direction the chain is slackened to permit the wheel to descend.

F F′ are levers pivoted to the boxes *i*, and designed to stem against the ground to aid in propelling the machine. The foot-board *p* is adjustable by means of set-screws *q′*, passing through curved slotted arms *q*.

If the motion of the machine is to be reversed, the clicks *l* are reversed by levers H. These levers are locked in position by spring-plates *u*, secured to boxes *i*, Fig. 5.

What I claim is—

1. The combination of pivoted seat *c* with a supporting-spring *d* and with draw-bars T T′, operated by the seat, boxes *i*, clicks *l*, and toothed wheels *k*, that are mounted on shaft *b*, substantially as specified.

2. The combination of pivoted seat *c* with spring *d*, rods *f*, angle-levers *h*, and draw-bars T T′, and with the boxes *i*, clicks *l*, and toothed wheels *k*, that are mounted on shaft *b*, substantially as specified.

3. The combination of steering-wheel A with post *r*, chain *k′*, and with lever *y* for adjusting the wheel vertically, substantially as specified.

4. The combination of boxes *i* with clicks *l*, toothed wheels *k*, stops *n′*, springs *u*, and levers H for reversing the clicks, substantially as specified.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

JOHANN M. GOLDERER.

Witnesses:

PATER RAYMUND KRILGER,

FR. COSMAS HEINCE.