(No Model.) 2 Sheets—Sheet 1.

F. WUGGENIG.

ICE VELOCIPEDE.

No. 590,351. Patented Sept. 21, 1897.

FIG. 1.

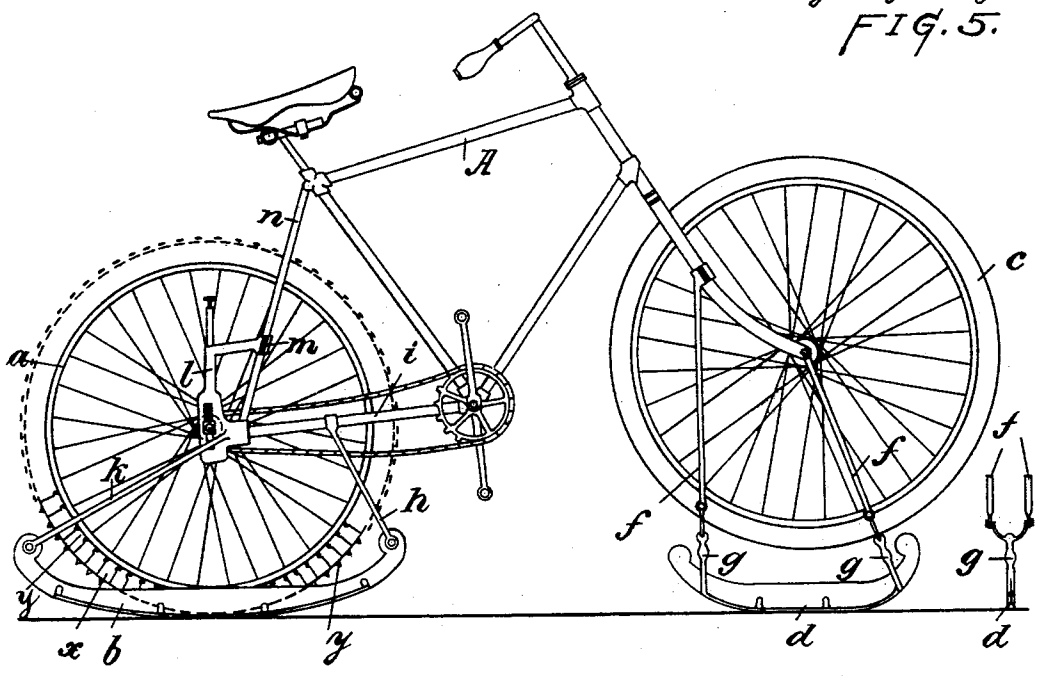


FIG. 5.

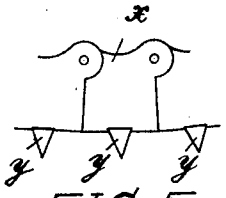
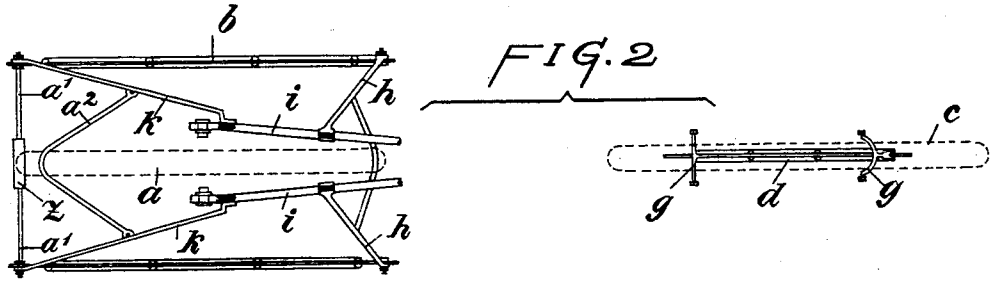


FIG. 2



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

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FIG. 3.

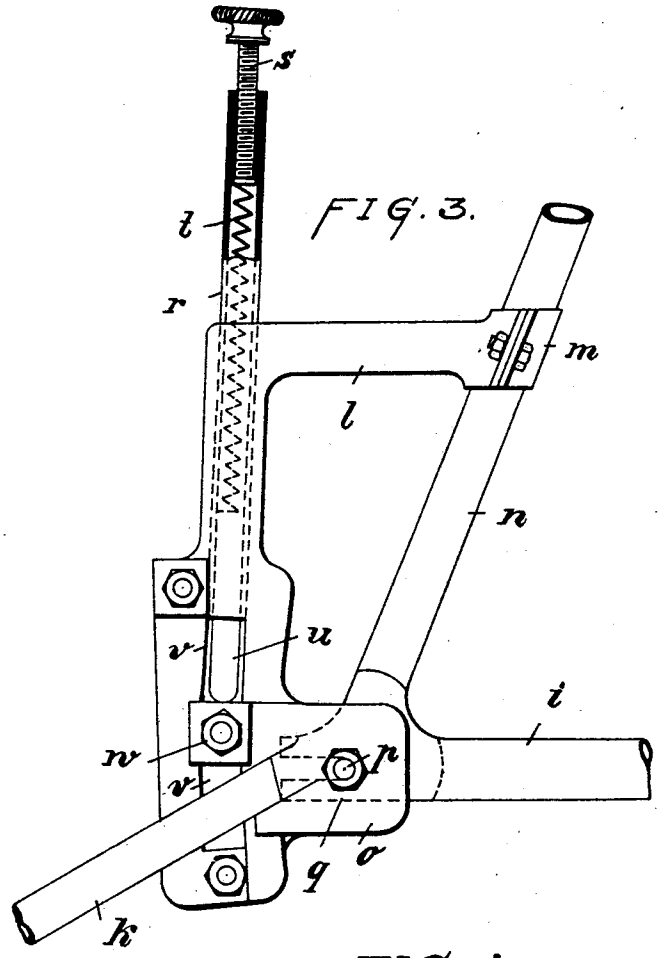
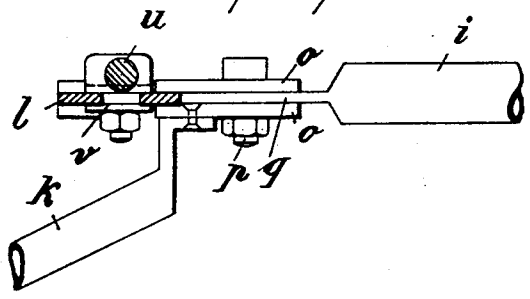


FIG. 4.



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UNITED STATES PATENT OFFICE.

FRANZ WUGGENIG, OF FELDKIRCH, AUSTRIA-HUNGARY.

ICE-VELOCIPEDE.

SPECIFICATION forming part of Letters Patent No. 590,351, dated September 21, 1897.

Application filed May 8, 1897. Serial No. 635,649. (No model.)

To all whom it may concern:

Be it known that I, FRANZ WUGGENIG, a subject of the Emperor of Austria-Hungary, residing at Feldkirch, Vorarlberg, in the Empire of Austria-Hungary, have invented a new and useful Velocipede, which can be converted into a sleigh, of which the following is a specification.

The present invention provides for a velocipede which can readily be converted into a sleigh, the driving mechanism being the same as in the case of a velocipede.

In the accompanying drawings, Figure 1 represents a side view of the cycle-sleigh; Fig. 2, a top view of the runners connected with the velocipede; Figs. 3 and 4, a side and top view, respectively, of the hind-wheel-bearing frame; and Fig. 5, a spiked chain to be put around the circumference of the hind wheel.

In order to convert a velocipede A into a sleigh, runners *b* are fastened on either side of the hind wheel *a*, while the front wheel *c* is supported by a single runner *d*.

The runner *d* is rigidly attached to the front fork by means of the stays F, which rest upon the forked end of the flaps *g*. Thus the runner follows the movements of the steering part. The front part of the runners *b* is fastened to the tube *i* of the velocipede-frame by means of the stays *h*. The rear end of these runners is connected by means of stays *k* with a special frame clamped onto the velocipede-frame. This frame consists of an angular piece *l*, the upper horizontal arm of which is clamped to the hind fork at *m*. The vertical arm is connected to the tube *i* by means of the flaps *o* and bolt *p*, this latter being put through the journal *q* of the previously-removed hind wheel. A tube or socket *r* is provided along the vertical arm of the angular piece *l*, inside of which rests the spiral spring *t*, regulated by the screw *s*. This spring presses the pin *u* onto the guide-block *w*, which slides in the slit *v*. This guide-block *w* serves as a journal for the hind-wheel axle, which consequently through the spring *t* is pressed downward.

The spiked chain *x*, two links of which are shown in Fig. 5, is laid around the circumference of the hind wheel, and the teeth *y* grip the surface of the ice or snow when the wheel is actuated. The two runners *b* are kept in their relative positions by means of the rods *a'*, which, being right and left threaded, thread into the socket *z*, equally threaded, and by means of the hoop a^2, fastened onto the stays K.

What I claim is—

In a velocipede in combination the front runner *d*, the flap *g* and the stays *f*, supporting the front steering-wheel, the hind runners *b*, the stays *h*, being fastened onto the tube *i* of the velocipede-frame, the stays *k*, being fastened to a specially-provided-for frame, consisting of the angular piece *l*, clamped to the rear fork and bolted to the tubing of the cycle, the journal of the hind wheel *w*, sliding in the slit *v* and being under pressure of the spiral spring *t*, running through a tube or socket *r*, the two stays *a'*, threading into the socket *z* and the hoop a^2 substantially as and for the purpose set forth.

FRANZ WUGGENIG.

Witnesses:

CONRAD SCHMISCHKE,

WILLY JULING.