W. H. UPTON.

Velocipede-Sled.

No. 209,367. Patented Oct. 29, 1878.

Fig. 1.

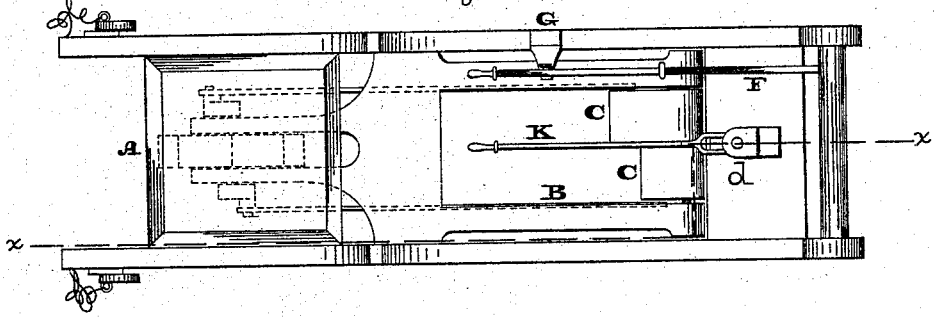


Fig. 2.

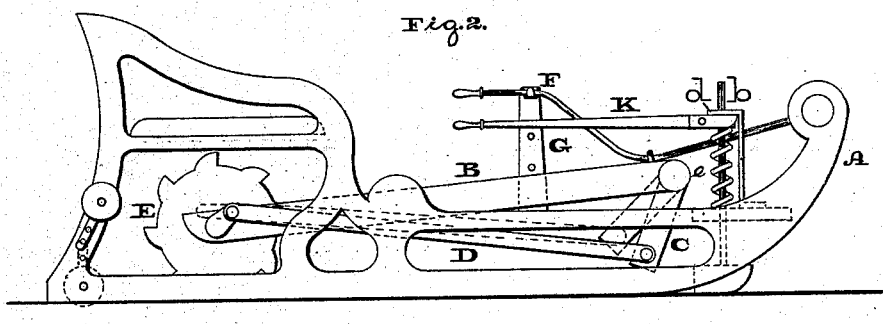


Fig. 3.

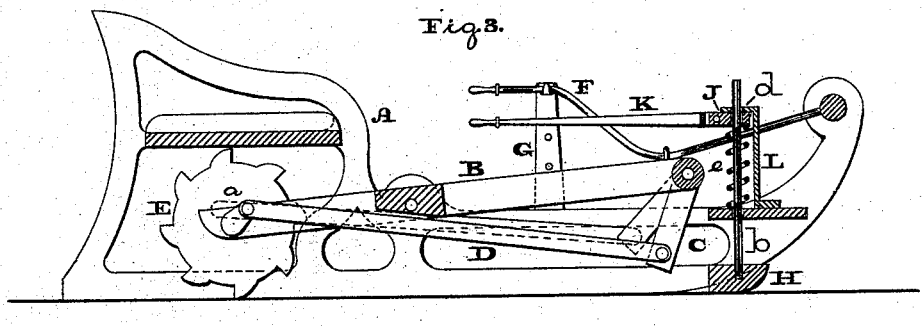
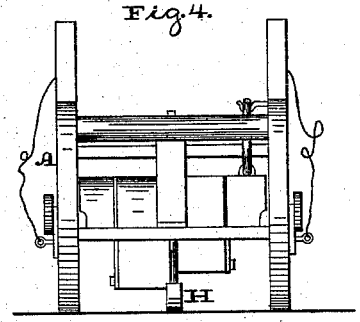


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM H. UPTON, OF CAMDEN, NEW JERSEY, ASSIGNOR OF ONE-HALF HIS RIGHT TO GEORGE M. DAVIS, OF PONTIAC, MICHIGAN.

IMPROVEMENT IN VELOCIPEDE-SLEDS.

Specification forming part of Letters Patent No. **209,367**, dated October 29, 1878; application filed May 31, 1878.

To all whom it may concern:

Be it known that I, WILLIAM H. UPTON, of the city and county of Camden, and State of New Jersey, have invented a new and useful Improvement in Velocipede-Sleds, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a top view of the sled embodying my invention. Fig. 2 is a side elevation thereof. Fig. 3 is a longitudinal vertical section in line *x x*, Fig. 1. Fig. 4 is a front view thereof.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a foot or hand operated propeller mounted on a swinging frame, which has its axis on the sides of the sled, and is adapted to be raised and lowered, so that the propeller may be raised from the snow or ice, or engaged with the latter relatively to the depth or condition of the same. The frame carries the propeller-wheel, foot-treadles, and connecting-pitmen, and has attached to it the raising and lowering lever, which engages in various positions with a holding-standard.

It also consists of a rudder, which may be forcibly pressed on the snow or ice, for steering purposes. The rudder is connected to a lever, which is adapted both for exerting downward pressure and for steering purposes, and a spring is employed for elevating the rudder.

Referring to the drawings, A represents a sled, to the sides of which there is mounted a longitudinally-extending frame, B, whose forward end carries treadles C, which are connected by pitmen D to cranks *a* of a spur or toothed propelling-wheel, E, whose axis is at the rear of said frame.

In order to raise or depress the wheel E, I employ a lever, F, which has its fulcrum on a proper part of the sled, is connected to the forward end of the frame B, and engages with teeth, lugs, or notches of a standard, G, rising from the sled.

H represents a rudder, which is connected to a shaft, *b*, having vertical motions, and properly guided in the forward end of the sled. Near the upper end of said shaft there is secured a block, J, to which is pivoted the front forked ends of a lever, K, whose rear end or handle is conveniently accessible from the seat of the sled.

Rising from the sled, adjacent to the shaft *b*, is a standard, L, whose upper end, *d*, overhangs the block J, and has an opening, through which is guided the upper end of the shaft *b*. A spring, *e*, is arranged to bear against the under side of the block J, for raising the same, and cause the rudder H to assume its normal or inoperative position.

The seat will be occupied, the wheel E lowered, and the feet of the operator placed on the treadles C, which are properly worked, and power is communicated to the wheel E, which, engaging with the snow or ice, imparts motion to the sled.

According as the snow is deep or hard, or the ice soft or smooth, the teeth of the wheel E will be required to engage with the snow or ice. For this purpose the lever F will be raised to partial or entire extent, thus depressing the rear end of the frame B, and causing the wheel E to be adjusted to its work.

When the wheel E is not required, the lever F will be lowered to full extent, thus elevating the rear of the frame B, and consequently the wheel E, to an inoperative position.

In order to steer the sled, the rider turns the lever K to the right or left, as desired, and depresses said lever, the forward end whereof has a fulcrum on the overhanging bearing *d*. This depresses the rod *b* and rudder H, which latter, being forcibly held on the snow or ice, changes the direction of the sled.

As soon as the steering is accomplished, the lever K is let go, and the spring *e* raises the rudder to its normal position inoperative.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The swinging frame B, carrying the treadles C, propelling-wheel E, and pitmen D, in combination with the lever F and notched

standard G, subsantially as and for the purpose set forth.

2. The sled-rudder H, in combination with the pressure and guiding lever K and elevating-spring *e*, substantially as and for the purpose set forth.

3. The sled-rudder H, in combination with the shaft *b*, block J, lever K, spring *e*, and standard L, with overhanging end *d*, substantially as and for the purpose set forth.

W. H. UPTON.

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