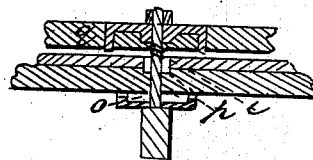
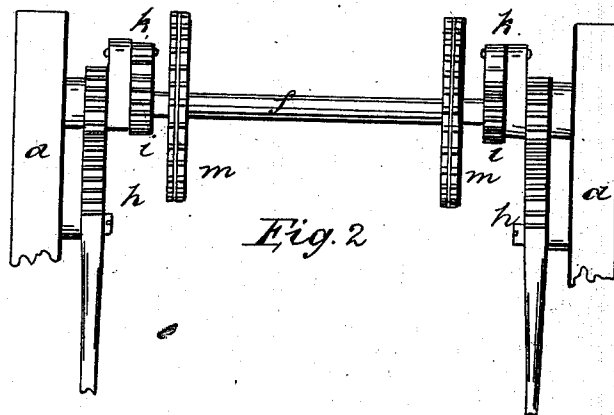
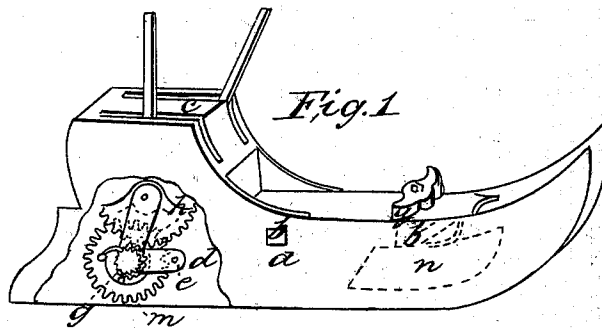


H. SMITH.

Sleigh.

Patented May 2, 1865.

No 47,580.



Witnesses
Albert H. Smith
Jeremy P. B. B.

Inventor:
Henry Smith

UNITED STATES PATENT OFFICE.

HENRY SMITH, OF NAUBUC, CONNECTICUT.

IMPROVEMENT IN SLEDS OR CARRIAGES.

Specification forming part of Letters Patent No. 47,580, dated May 2, 1865.

To all whom it may concern:

Be it known that I, HENRY SMITH, of Naubuc, county of Hartford, and State of Connecticut, have invented certain new and useful Improvements in Sleds or Carriages, and I do hereby declare that the same is described and represented in the following specification and drawings, and to enable others skilled in the art to make and use the same, I will proceed to describe its construction and operation by referring to the drawings, in which the same letters indicate like parts in each of the figures, the nature of which will be understood from the specification and drawings.

Figure 1 is a side elevation, having one of its runners cut away so as to show the propelling mechanism, and a guide-runner dotted through one side, which is designed to show the mode of steering. Fig. 2 is an elevation of the propelling mechanism.

a are the runners.

b are the beams.

c is the operator's seat.

d are angle-hangers. One end of one arm of each is secured to the inside of the runners in about a horizontal position and near the rear end, at *e*, directly under the operator's seat, by means of screws or bolts, so as to allow them (the angle-hangers) to oscillate more or less, as desirable.

f is a shaft, the ends of which take their bearing in the angle of the hanger *d*.

g are gears, secured loosely on the shaft *f*, just inside of the hangers *d*.

i is a ratchet-wheel, made fast to said shaft.

k are pawls, secured to the sides of the gears *g*, and play in the teeth of the ratchet-wheel *i*, so as to allow the gear *g* to turn freely on the shaft *f* in one direction without turning said shaft, but when the motion is produced in an opposite direction the shaft must necessarily turn therewith.

h are lever segment-gears, secured in or to the other end of the arms of the angle-hangers so as to allow them to mesh into the teeth of the gear *g*.

m are creeper or carriage wheels, secured to the shaft *f*. Thus it will be seen that when one or both of the levers are pushed forward the pawls *k* will move over one or more of the ratchet-teeth, and when pulled backward will cause the shaft and creeper-wheels to move or revolve forward, and by the alternate or

simultaneous action of the hands of the operator backward and forward a rapid and easy motion to the sled or carriage will be produced.

n is a guide-runner.

o is a plate having double-incline or wedge formations formed thereon for the purpose of depressing the runner (upon the upper edge of which it is secured) whenever it may be desirable.

p is a shaft, extending from the center of the plate *o* upward through the beam and bottom of the carriage, and having a foot-lever, *q*, secured onto the upper end thereof, and a spring, *r*, also provided directly under the said foot-lever, for the purpose of keeping the runner up from the ground-surface while not required for use. Thus when the operator, having his feet against the lever *q*, is desirous of changing the course of the carriage, he has only to push either his right or left foot in the direction which he desires, when the runner will, by the action of the incline surfaces on the plate *o*, be depressed onto the ground-surface, and give the desired course to the carriage.

In making these sleds or carriages several modifications may be made to simplify without changing the principle, as shown and described.

This improvement may be easily applied to wheel-carriages as well as sleds, and I propose sometimes so to do.

By means of this improvement I am enabled to produce a simple, desirable, and useful pleasure sled or carriage.

I believe I have thus shown the nature, construction, and operation of this sled or carriage so as to enable a person skilled to make and use the same therefrom.

What I claim therefore, and desire to secure by Letters Patent, is—

1. The combination of the lever segment-gears *h* and *g*, pawl and ratchet-wheel *k i*, and creeper-wheel *m*, with the carriage, substantially as described.

2. With the above, the combination of the guide *n*, plate *o*, and foot-lever *q*, with the carriage, substantially as described.

HENRY SMITH.

Witnesses:

ALBERT H. NORTH,
JEREMY W. BLISS.