

AARON H. WALRATH.

Improvement in Bob-Sleds.

No. 118,831.

Patented Sep. 12, 1871.

Fig 1

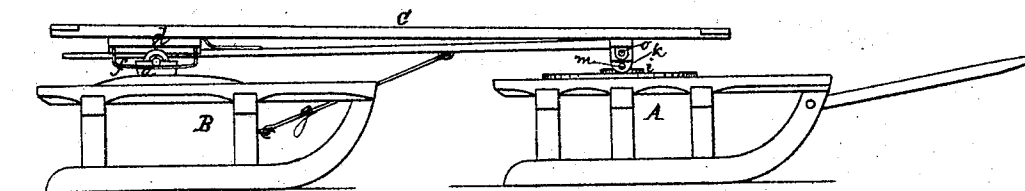


Fig. 2.

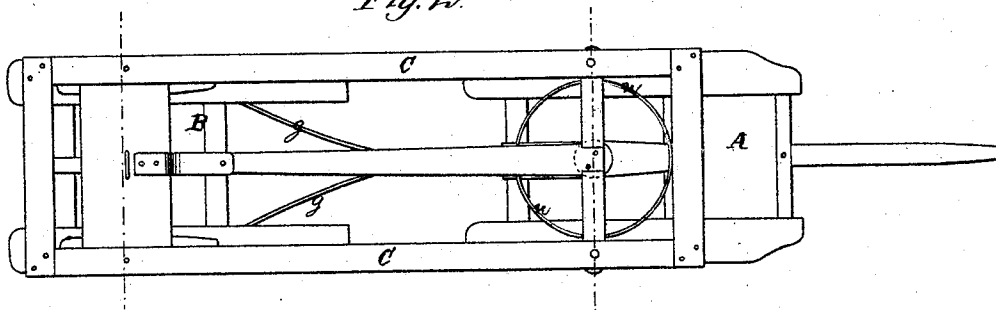


Fig. 3.

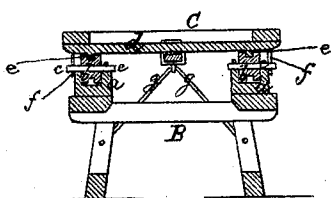
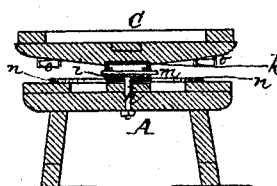


Fig. 4.



Inventor
 Aaron H. Walrath
 by his attorney
 A. Pollok.

Witnesses
 C. B. Nottingham.
 T. C. Smith

UNITED STATES PATENT OFFICE.

AARON H. WALRATH, OF PAMELIA FOUR CORNERS, NEW YORK.

IMPROVEMENT IN BOB-SLEDS.

Specification forming part of Letters Patent No. 118,831, dated September 12, 1871.

To all whom it may concern:

Be it known that I, AARON H. WALRATH, of Pamela Four Corners, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Bob-Sleds, of which the following is a specification:

My invention consists in the arrangement of the parts, hereinafter specified, for giving the front and rear sleds of a bob-sled perfect freedom of motion independently of each other and of the other parts of the sleigh; the object being to adapt the sled to travel with greater advantage over uneven and rough roads. The nature of my invention will be readily understood by reference to the accompanying drawing, in which—

Figure 1 is a side elevation of a bob-sled made in accordance with my invention. Fig. 2 is a top view of the same. Fig. 3 is a transverse vertical section through the center of the rear bob. Fig. 4 is a like section through the center of the front bob.

A and B represent the front and rear sleds of the bob-sled. C is the rack or box, which rests upon the bobs A B, and is connected with the same, as will be now described. On each rave of the rear sled is secured a box, *a*, in which is mounted a centrally-grooved wheel, *b*, adapted to revolve on or with a suitable shaft or journals, *c*. These rollers are intended to support the rear end of the rack C, and the bolster *d* of the latter has on its under side and near each of its ends a rail, *e*, which fits in the groove of the roller beneath. By means of this arrangement the sled B can rock back and forth independently of the rack, the rollers preventing undue friction and facilitating the movement, and the rails *e*, which engage with the grooved rollers, preventing any lateral motion of the sled independently of the rack. In order to hold the rack down upon the rollers yokes *f* are attached to each side of the rack, which engage with the projecting journals of the rollers or other pins or studs projecting from the sled, as shown in Figs. 1 and 3, so as to hold at all times the rails *e* in the grooves of the rollers without interfering with the free movement of the sled. The rear sled is further attached to the rack by a bail or rods, *g*, hinged at one end to the front of the sled, and at the other to the rack, as seen in Fig. 1. The construction of the yokes *f* may be varied, and they may be placed upon the sled, if desired. In that case they will engage with pins upon the rack. The front sled A

is united with the rack by means of a bolt, *h*, which passes up through one of the cross-timbers of the sled, and carries on its upper end a plate or disk, *i*, provided with ears, which fit between corresponding ears formed on a plate, *k*, attached to the under side of the rack. A coupling-pin, *m*, passing through the two sets of ears, holds the two plates together and allows the sled to have freedom of motion back and forth. The plate *i* turns on the bolt *h* so as to allow the sled to turn upon the bolt as a pivot, and the connection of the parts is such as to permit the sled to rock from side to side. When the sled has this motion it is at times apt to be brought in contact with the under side of the rack; and to prevent any injurious effects arising from this contact, and to allow the sled to turn easily when in a tilted or inclined position, I provide on the sled a circular rail *n*, and on the under side of the rack, in the path of or immediately above the rail, two rollers, *o*, arranged on opposite sides of the coupling, as shown in Fig. 4, by means of which all undue friction or rubbing between the sled and rack is prevented, and the sled can readily turn when tilted or inclined. If desired, the rail may be attached to the rack and the rollers to the sled.

A bob-sled thus constructed is much better and easier to use than ordinary sleds. The construction and arrangement of the parts which hold the bobs to the rack are simple and readily understood, and the whole device is cheap and without complicated parts, and can be readily constructed.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination and arrangement of the herein-described devices for holding the rear bob to the rack or box in the manner shown and set forth.

2. The combination of the front bob, the rack, and devices for coupling the same, and the circular rail and rollers, said parts being constructed and arranged for joint operation in the manner shown and set forth.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

AARON H. WALRATH.

Witnesses:

EDMUND B. WYNN,
WALTER McMULLIN.