

(No Model.)

M. D. WILLIAMS.

BOB SLEIGH.

No. 382,926.

Patented May 15, 1888.

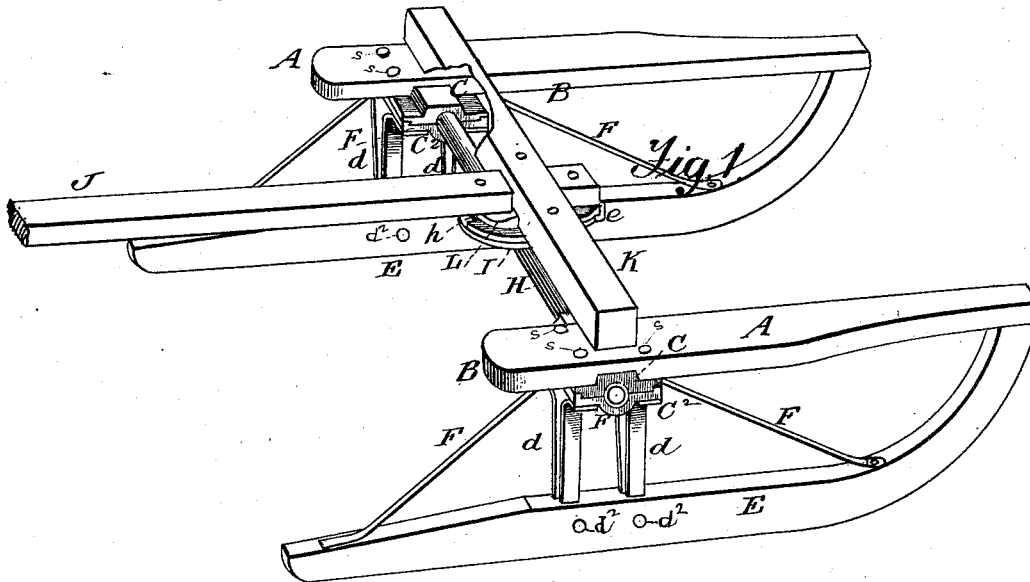


Fig. 2.

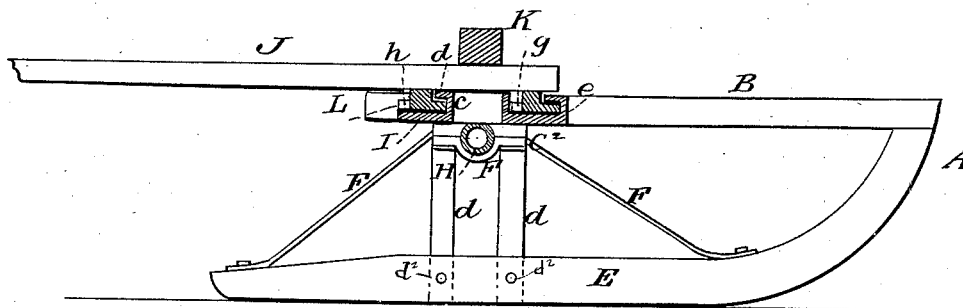


Fig. 3.

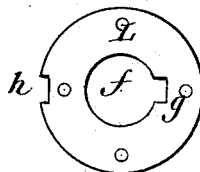
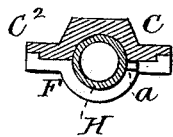
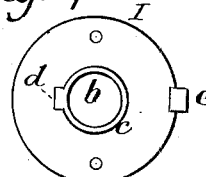
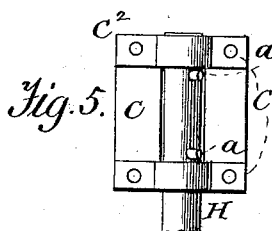


Fig. 4



Witnesses.
A. Ruppert.
Elida C. Hough.

Inventor.
 Orrin D. Williams.



Franklin H. Hough
Atty.

UNITED STATES PATENT OFFICE.

MELVIN DANIEL WILLIAMS, OF DEXTER, MINNESOTA.

BOB-SLEIGH.

SPECIFICATION forming part of Letters Patent No. 332,926, dated May 15, 1888.

Application filed November 5, 1887. Serial No. 254,410. (No model.)

To all whom it may concern:

Be it known that I, MELVIN DANIEL WILLIAMS, a citizen of the United States, residing at Dexter, in the county of Mower and State of Minnesota, have invented certain and useful Improvements in Bob-Sleighs; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in bob-sleighs, and has for its object to simplify, cheapen, and to render more efficient, and otherwise to generally improve construction of this class of devices.

To these ends, and to such others as the invention may relate, the same consists in the peculiar construction and in the novel combination, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the accompanying drawings, and then particularly defined in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a portion of a bob-sleigh constructed in accordance with my invention. Fig. 2 is a longitudinal section on a line, *x x*, of Fig. 1. Figs. 3 and 4 are details hereinafter more fully referred to.

Referring now to the details of the drawings, A represents a bob. Secured to the under side of the rave B is the plate C, the upper portion of which is countersunk into the under face of the rave, as shown, and has its lower surface concave, thus forming the upper half of the journal-box C². The knees *d d* consist of flat strips of metal, the lower ends of which are set into the upper face of the runner E, and are secured in place by means of pins or bolts *d'*, passed through the runner. The knees are arranged in pairs, as shown, the outer knee in each pair having its upper end bent outwardly, while the upper end of the adjacent knee in the pair is bent inwardly, the knees thus together forming a support for the sectional journal-boxes.

H is an axle, preferably of metal and hollow. The ends of this axle are journaled within the journal-boxes C², and are allowed to par-

tially revolve within the same, the pins *a a* serving to prevent the same from turning beyond the point desired. Bolted or otherwise secured to the upper side of the axle is the plate I, having a central opening, *b*, surrounded by the boss *c*, the upper edge of which is provided with the outwardly-extending flange or lug *d*. At its front edge the plate I is provided with a hook-shaped lug, *e*.

J is the reach, carrying upon its forward end the bolster K. Secured to the under side of the reach, at its forward end, is the circular plate L, provided with a central opening, *f*, to engage the boss *c*, and also provided with a notch, *g*, to engage the flange *d*. The plate L is also provided at its rear edge with a notch, *h*, to engage the lug *e* upon the plate I.

From the foregoing description it will be seen that in attaching the reach it will be necessary to throw the same forward, so as to permit the lug upon the front edge of the plate I to enter the corresponding notch in the plate secured to the reach, and the plate, having been thus connected, can by no possibility become detached through accident or otherwise, as in order to detach them the upper plate must be turned into the position described in attaching them, the lug upon the lower plate serving to guide and retain the upper plate in position. This construction permits a free and independent movement of each of the runners.

It will be observed that the bolts *s* serve to secure the two parts of the box together, to secure the rave to the box and the horizontal portions of the supports *d*.

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

1. The combination, with the runners E, of the vertical supports *d*, arranged in pairs, as shown, and provided at their upper ends with horizontal portions, of the rave, the two-part box supported by the horizontal portions of said supports and confined between the same and the rave, and the bolts *s*, passed through the rave, the two parts of the box, and the horizontal portion of the supports, and serving to secure them all together, as set forth.

2. The combination, with the runners E, of the vertical supports *d*, arranged in pairs, as shown, and each provided at its upper end

with a horizontal portion, of the rave provided
upon its under face with a transverse groove,
the two-part box supported upon the horizon-
tal portions of said supports and confined be-
5 tween the same and the rave, the upper part
of the box being formed with a transverse rib
engaging said groove, and the bolts s, passed
through the rave, the two parts of the box, and
the horizontal portions of the supports, and

serving to secure them all together, substan- 10
tially as described.

In testimony whereof I affix my signature in
presence of two witnesses.

MELVIN DANIEL WILLIAMS.

Witnesses:

G. A. BUCK,

C. E. WEMPLE.