

J. W. SMITH.
Reaches for Bob-Sleds.

No. 139,336.

Patented May 27, 1873.

Fig 1.

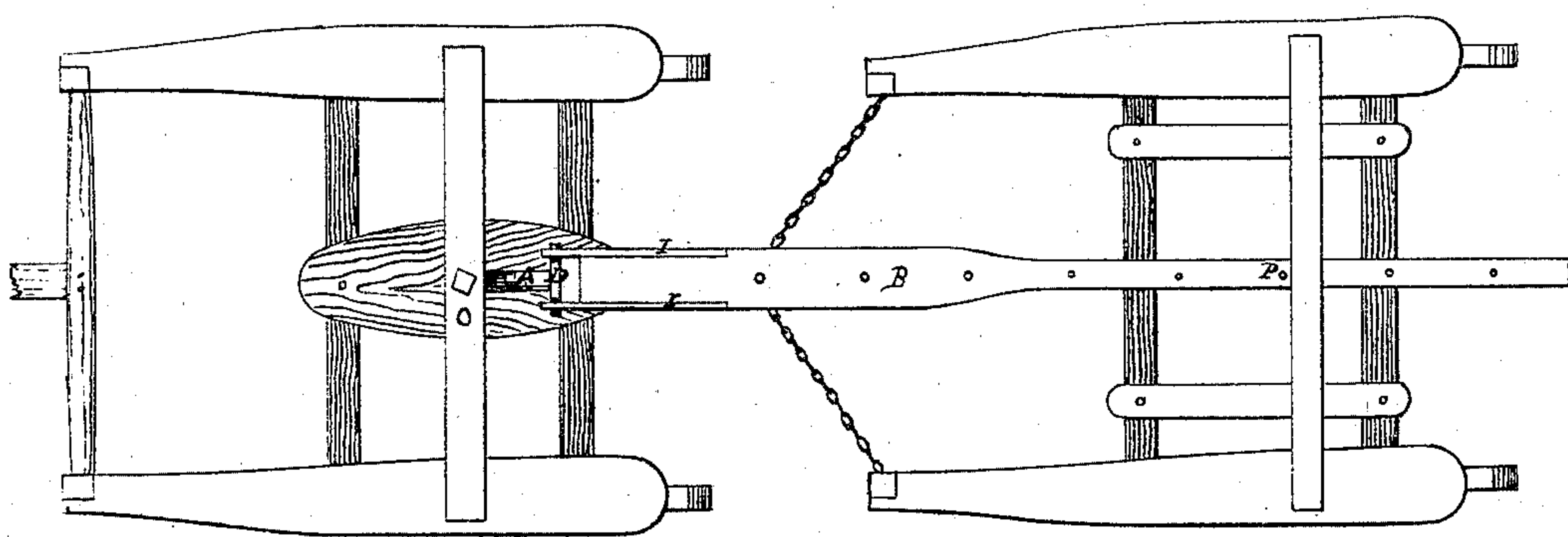
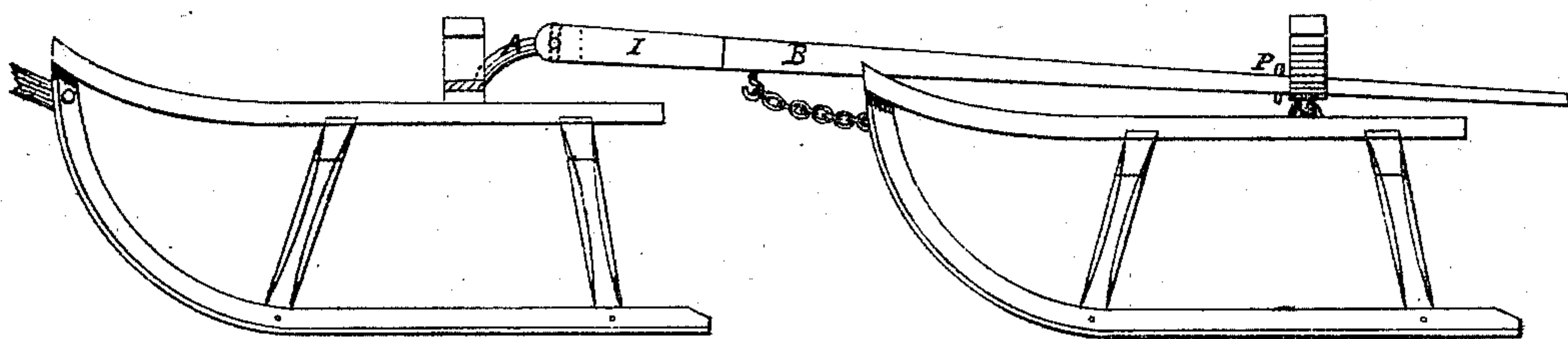


Fig 2.



Witnesses:

Chas. P. Brown
C. E. Kellogg

Inventor:

John W. Smith. by
Otto Lee Johnson
his Attorney

UNITED STATES PATENT OFFICE.

JOHN W. SMITH, OF BATTLE CREEK, MICHIGAN.

IMPROVEMENT IN REACHES FOR BOB-SLEDS.

Specification forming part of Letters Patent No. **139,336**, dated May 27, 1873; application filed March 14, 1873.

To all whom it may concern:

Be it known that I, JOHN W. SMITH, of Battle Creek, in the county of Calhoun, and State of Michigan, have invented an Improved Reach for Bob-Sleds or Wagons, of which the following is a specification:

The subject of this invention is an improved reach for bob-sleds or wagons; and it is intended to give greater freedom in the movement of each bob, as well as to relieve the reach from all torsional strain.

In the drawings illustrating the invention, Figure 1 is a top or plan view of the reach as applied to bob-sleds; Fig. 2 is a side elevation.

Similar letters of reference indicate like parts in both figures.

I form on the upper bolster-plate *o* of a bob-sled a bent arm, *A*, which carries a plate, *D*, riveted or bolted loosely to it, and turning against a shoulder formed on the arm *A*. The plate *D* is usually made of a size to correspond with the end of the reach, and has a pin formed on each end, as shown in the drawings. Two plates of metal, *I I*, having holes drilled in their ends to fit on the pins formed on the ends of the plate *D*, are bolted to the sides of the reach *A*, leaving the ends of said plates or straps of iron *I I*, projecting beyond

the end of the reach, as shown in Fig. 1. The hind bob is connected to the reach by the common device of eyebolt and chain. To lengthen or shorten the distance between the bobs I shift this eyebolt from one to any of a series holes made through the reach at a suitable distance from each other. In order to keep the hind bob in place and render backing possible, I screw a check-pin, *P*, through one of these holes just forward of the hind bolster.

My invention besides relieving the reach from all torsional strain, also relieves the bolsters from any strain, for the reason that I connect directly to the king-bolt.

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

In a reach for bob-sleds, the bent arm *A*, plate *D*, straps *I I*, pin *P*, and arm or reach *B*, combined substantially as specified.

To the above specification of my invention I have signed my name this 8th day of March, A. D. 1873.

JOHN W. SMITH.

Witnesses:

C. T. COOK.

CHAS. A. DIBBLE.