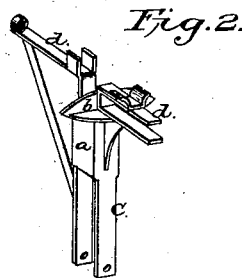
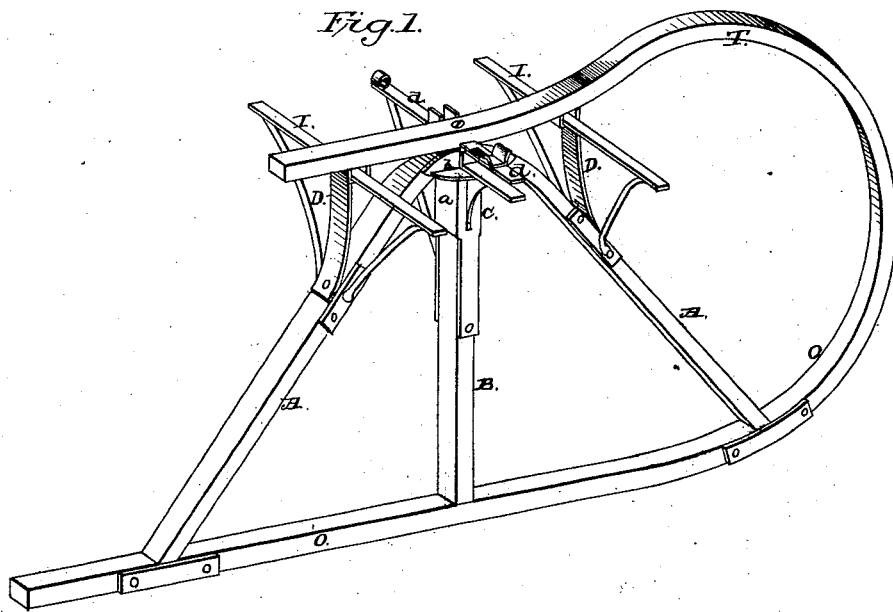


J. J. COBB.  
Sleigh.

No. 204,884.

Patented June 18, 1878.



*Attest:*

*Peter L Burlingame*

*Edwin A Burlingame*

*Inventor.*

*John J. Cobb*

# UNITED STATES PATENT OFFICE.

JOHN J. COBB, OF GRAND RAPIDS, MICHIGAN.

## IMPROVEMENT IN SLEIGHS.

Specification forming part of Letters Patent No. **204,884**, dated June 18, 1878; application filed April 27, 1877.

*To all whom it may concern:*

Be it known that I, JOHN J. COBB, of Grand Rapids, Kent county, Michigan, have invented a new and useful Improvement in Sleigh and Cutter Gear, of which the following specification is a full description, reference being had to the accompanying drawing.

My invention relates to the construction of a gear for sleighs and cutters, with an arched knee, A, so arranged as to answer the purpose of front and back knees of the ordinary kind, which arched knee has the front end set bracing forward in the runner, and the back end set bracing backward in the same runner, and is supported in the center by an ordinary knee, B, held to its place and supported by a metallic piece, C, which metallic piece is of peculiar shape, as shown in the drawing, Figure 2, and made of malleable or cast iron or other suitable material.

When used for cutters the metallic piece C is made all in a single piece, which piece contains a mortise, *a*, with a T-top, *b*, extending any desired distance either way, for the purpose of supporting arched knee A, and further supporting a reversed T-top, *d*, which answers as a beam-rest in sleighs and cutters. Other metallic pieces D D, of peculiar construction, (shown by Fig. 1 in the drawing,) are attached to arched knee A any desired distance front and back of the center knee B, to act as rests for front and back beams, thus obviating the cutting of timber for mortises and tenons and the labor necessary thereto, and thereby less-

ening the expense of the gear, for the reason that these metallic pieces can be cast each in a single piece, and readily fitted to the knees and beams without cutting away timber, and thereby saving a great expense of labor and blacksmithing.

When the bobs are to be used for wheeled vehicles the front and back beam-rests D D are dispensed with, and the center beam-rest *d* is attached to the axle-tree of the wagon by means of ordinary clips or similar devices, thus dispensing with the use of the box for attaching axle-trees.

With the above-described improvement a runner, O O, and rave T T, bent from a single piece in form similar to that shown by Fig. 1, can be used to the best possible advantage, thereby saving the expense and labor of splicing and making the gear stronger.

What I claim to have invented, and desire patented, is—

A gear for sleighs, cutters, bobs, &c., having arched knee A, Fig. 1, supported by center knee B, held to position by metallic piece C, having mortise *a*, T-top *b*, supporting reversed T-top *d* for beam-rest, also having front and back metallic pieces D for the support of front and back beams, as and for the purpose set forth.

JOHN J. COBB.

Witnesses:

PETER L. BURLINGAME,  
EDWIN A. BURLINGAME.