

No. 879,251.

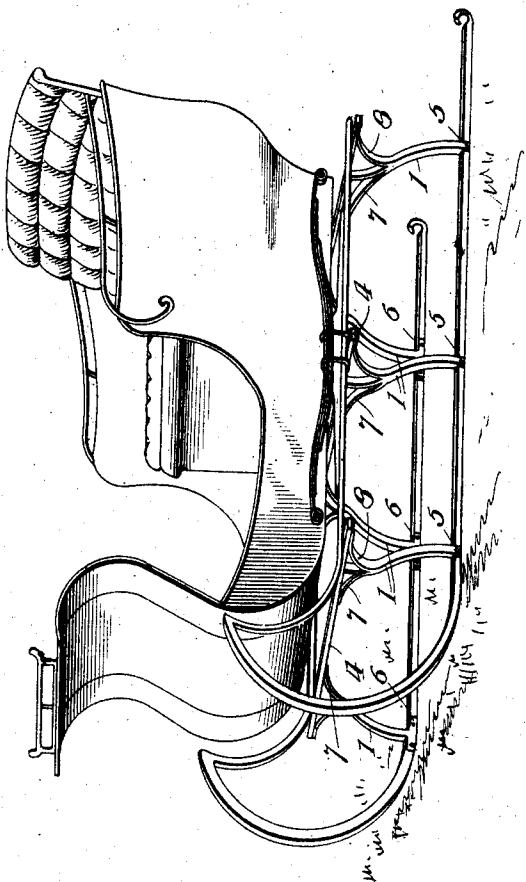
A. H. FLINT.
SLEIGH KNEE.

PATENTED FEB. 18, 1908.

APPLICATION FILED JUNE 9, 1908.

2 SHEETS—SHEET 1.

FIG. 1.



Witnesses

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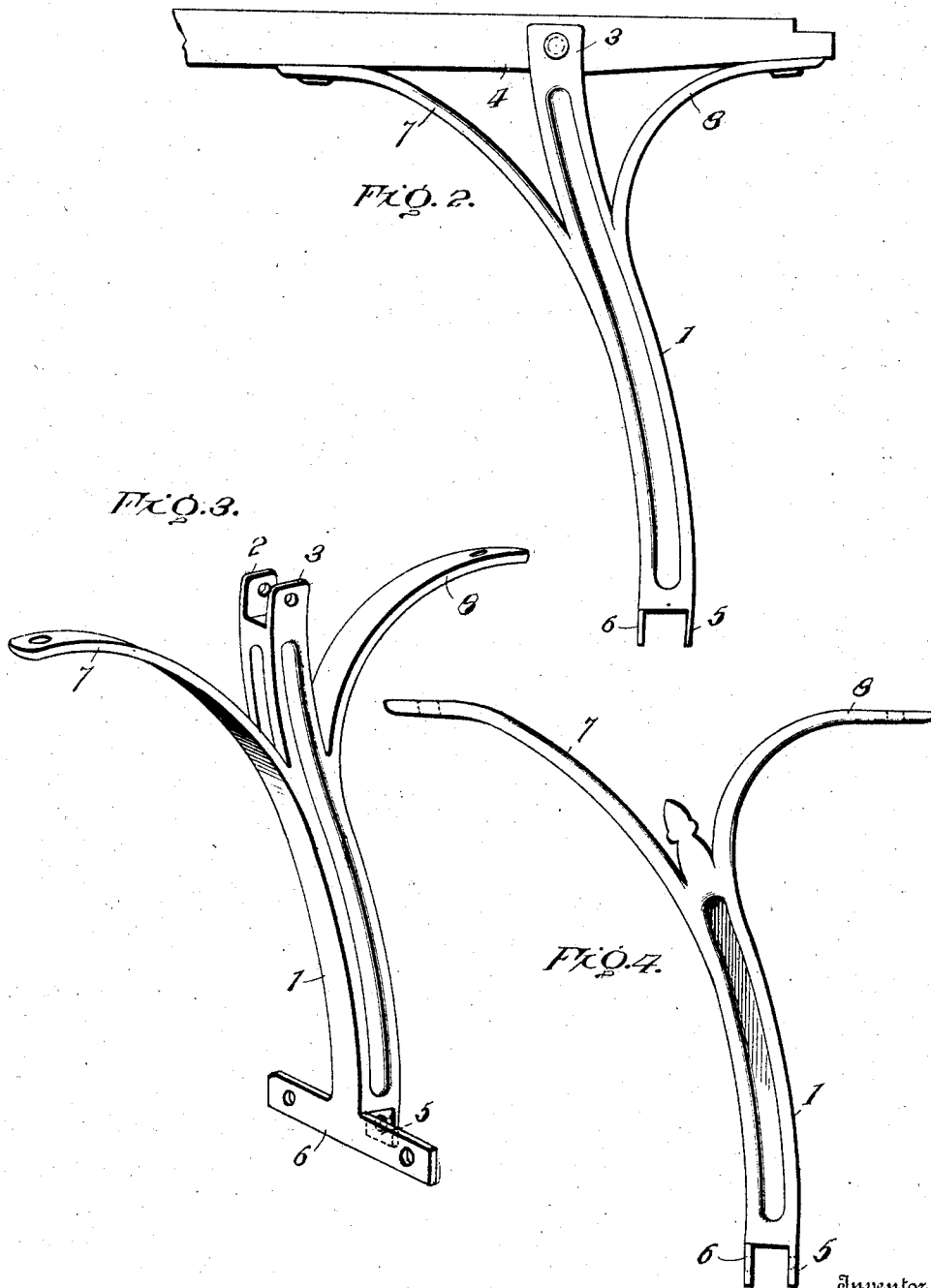
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2 SHEETS—SHEET 2.



Witnesses

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UNITED STATES PATENT OFFICE.

ALMON H. FLINT, OF MOIRA, NEW YORK.

SLEIGH-KNEE.

No. 879,251.

Specification of Letters Patent.

Patented Feb. 18, 1908.

Application filed June 9, 1906. Serial No. 321,043.

To all whom it may concern:

Be it known that I, ALMON H. FLINT, citizen of the United States, residing at Moira, in the county of Franklin and State of New York, have invented certain new and useful Improvements in Sleigh-Knees, of which the following is a specification.

The purpose of the present invention is to replace the accustomed wooden knee of sleighs by means of a metal knee, which will be so formed as to equalize strain and obviate mortising of the runner or cross bar to receive tenons generally provided at the ends of the knee in order to obtain a mortise and tenon joint.

A further purpose of the invention is to obviate the provision of the separate and independent braces generally provided between the knees and the runner and cross piece in order to sustain the strain coming on the several parts.

The present invention provides a metal knee curved in its length to approximate an ogee outline and provided at one end, the lower preferably, with oppositely extended branches forming braces which are adapted to be secured to the runner in any substantial way either by means of rivets or bolts.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result, reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment is shown in the accompanying drawings, in which:

Figure 1 is a perspective view of a sleigh with knees constructed in accordance with the invention. Fig. 2 is a side view of a knee. Fig. 3 is a perspective view of a knee. Fig. 4 is a view similar to Fig. 2 of a modification.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The sleigh illustrated is of ordinary construction and design and is selected to show the application of the invention.

The knee 1 is of ogee form in side view and is formed of metal, being preferably cast, al-

though adapted to be constructed in any way. In the preferred formation, spaced extensions are provided at opposite ends of the knee to embrace opposite sides of the parts to which the knee is attached. The upper spaced extensions 2 and 3 embrace opposite sides of the cross bar 4 of the sleigh.

The extensions 2 and 3 are apertured to receive rivets, bolts or like fastening means. The lower spaced extensions 5 and 6 embrace opposite sides of the runner and are apertured to receive suitable fastenings such as rivets or bolts. The inner extension 6 is provided with lateral wings which project along the runner upon opposite sides of the knee to obtain an extended bearing against the runner and enable firm connection of the knee therewith. The extensions 5 and 6 are arranged relatively at a right angle to the extensions 2 and 3. Branches 7 and 8 curve in opposite directions from the upper portion of the knee and are in the same plane with each other and with the knee and are adapted to have their upper ends underlap the cross bar 4 to which they are attached by rivets, bolts or other securing means. The compound curvature or ogee outline of the knee is best adapted to sustain the strain and equalize the same, thereby preventing over-strain of the connections between the knee and the parts to which it is attached.

In the modification shown in Fig. 4 the upper portion of the knee is cut away, the branches 7 and 8 serving as securing means solely between the upper end of the knee and the cross bar. This form of knee is admirably adapted for sleighs of light structure, but for heavily constructed sleighs the form of knee shown in Figs. 2 and 3 is preferred.

The knee consists essentially of a bar or slender body, and the branches 7 and 8 springing therefrom at or near one end and being integral therewith obviate loose joints and the expense and annoyance incident to extraneous fastenings such as rivets or bolts.

Having thus described the invention, what is claimed as new is:

The herein described metallic knee for sleighs comprising a bar of approximately ogee form provided at its upper extremity with spaced extensions designed to embrace the cross bar of the sleigh and also provided at its lower extremity with spaced extensions arranged at approximately right angles to the before mentioned extensions and de-

signed to embrace the sleigh runner, the inner extension at the lower end of the knee being provided with lateral wings which project along the runner upon opposite sides
5 of the knee to obtain an extended bearing against the same, oppositely extending integral branches being provided at the upper portion of the knee for engaging the cross bar of the sleigh, said branches being in the

same plane with each other and with the 10 knee.

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

ALMON H. FLINT. [L. s.]

Witnesses:

NEMEL L. DODGE,
W. H. MONTROSS.