J. P. DORMAN.

Improvement in Sleigh-Knees.

No. 130,625. Patented Aug 20, 1872.

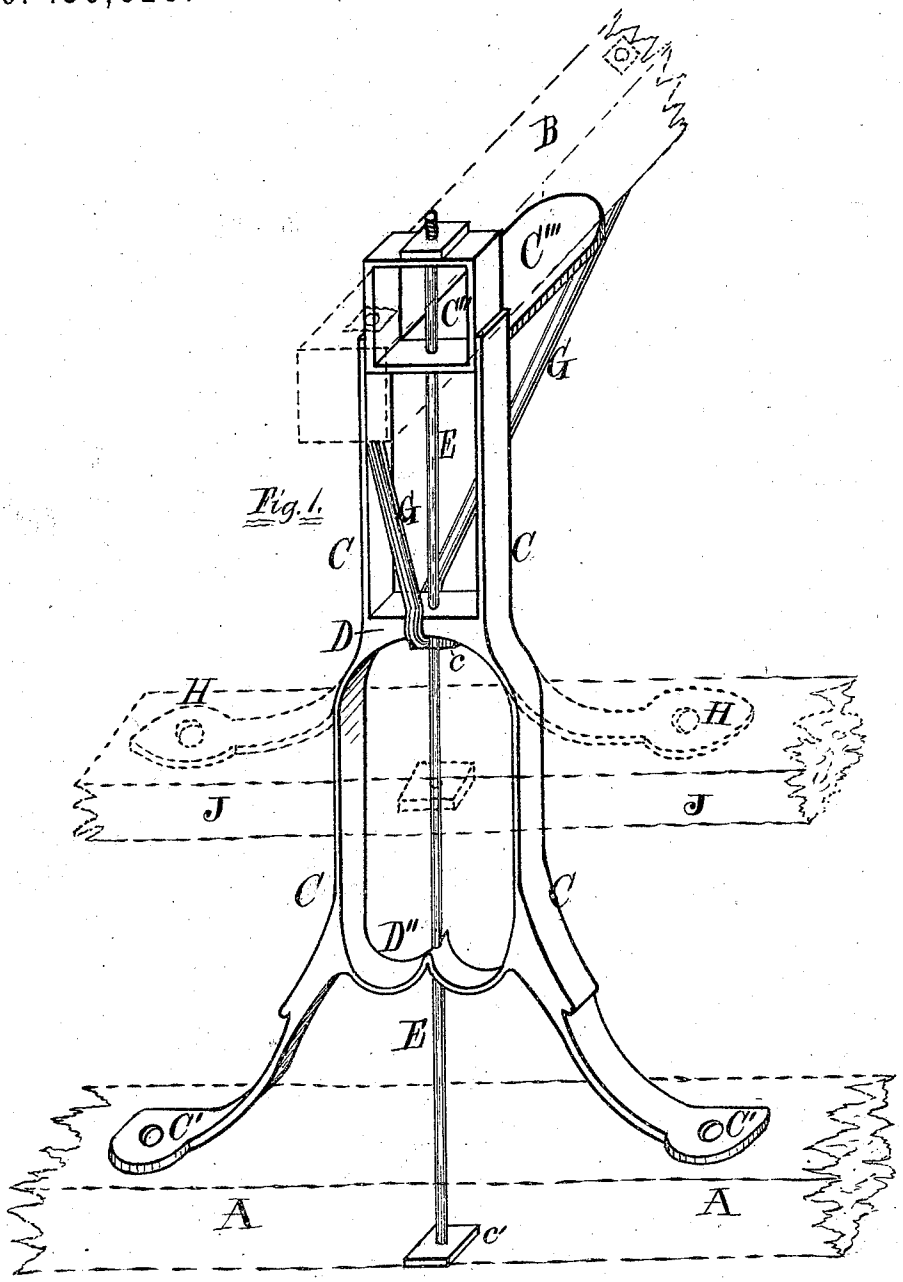

Fig. 1.

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UNITED STATES PATENT OFFICE.

JOHN P. DORMAN, OF GALESBURG, ILLINOIS.

IMPROVEMENT IN SLEIGH-KNEES.

Specification forming part of Letters Patent No. **130,625**, dated August 20, 1872.

SPECIFICATION.

I, JOHN P. DORMAN, of Galesburg, county of Knox and State of Illinois, have invented certain Improvements in Knees for Sleighs and Sleds, of which the following is a specification:

Nature and Objects of the Invention.

The nature of my invention relates to improvements in the construction of the knees of sleds and sleighs; and the invention consists in forming the same of metal, in such shape that they may be readily and easily attached to or detached from the runners and from the beams, and in such shape that they will hold the runners and beams firmly and securely in place, at the same time furnishing a cheap and durable article for the purpose.

Description of the Accompanying Drawing.

Figure 1 is a perspective view of one of my improved knees as adapted to a sled.

General Description.

A represents a section of a sleigh-runner. B (dotted lines) represents a section of a cross-beam of sled or sleigh. The full lines C C C represent my improvement as adapted to sleighs, consisting of a hollow cast-metal frame, formed as shown, with foot-plates C′ C′, through which bolts pass to secure it to the runner A, and with a socket, C″, at its upper end for the reception of the beam B. C‴ is a plate extending from the lower side of the socket C″ inward, and acting as a brace. D D′ are cross-pieces on the knee C. E is a bolt, with nuts on its upper and lower ends, formed and applied as hereinafter described. G is a brace, applied as shown, its central part clasping the cross-piece D and its ends passing through and bolted to the beam B.

The application of my invention to sleighs is as follows: The foot-plates C′ C′ are bolted to the runner. The beam B is inserted in the socket C″, as shown. The brace G is then applied, as shown, holding the beam securely in place. The rod or bolt E may be applied, or it may be dispensed with; if applied, its upper end may pass up through the beam B and socket C″, and its lower end terminate and be secured by a nut, *c*, below the cross-piece D; or be passed on through the cross-piece D′ and runner A, and be there secured by a nut, *c*′, forming a cheap, substantial, simple, and ornamental knee for any class of sleighs.

To make the knee shorter and adapt it to sleds, the lower part of the frame C may be dispensed with, and the foot-plates H H projected from near the cross-piece D, as plainly shown by dotted lines H H. The upper side of the socket C″ may be also dispensed with, and that part of the frame C between the cross-piece D and bottom of the socket C may be made solid.

The knee as last described is attached to sleds as follows: The foot-plates H H are bolted to the runner J, (dotted lines.) The beam B is laid in the socket C″, and the brace G applied the same as described for sleighs; the bolt E is then passed up through the runner J, cross-piece D, the solid part of the frame or knee C, and the beam B, and secured by a nut at one end and head at the other, as shown in the drawing, forming, as for sleighs, a cheap, substantial, simple, and strong knee for any class of sleds.

Claim.

The metallic knee C, constructed as described, with either foot-plates C′ C′ or H H, socket C″, and plate C‴, and arranged to operate with the brace G, beam B, rod E, and runners J or A, substantially as described, and for the purpose specified.

JOHN P. DORMAN.

Witnesses:
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