(No Model.)

P. HILGER.

SLEIGH.

No. 327,168.

Patented Sept. 29, 1885.

Fig. 1.

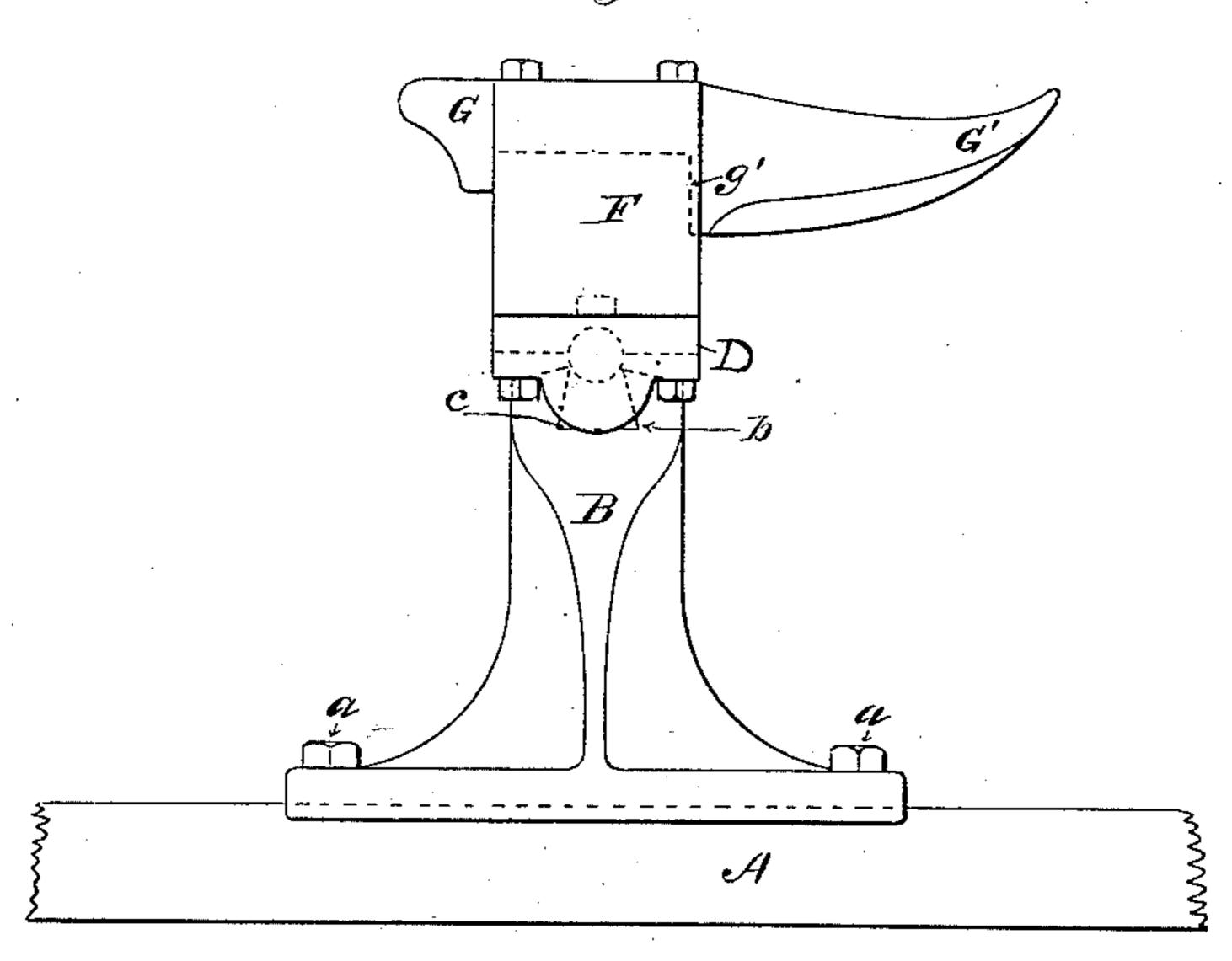
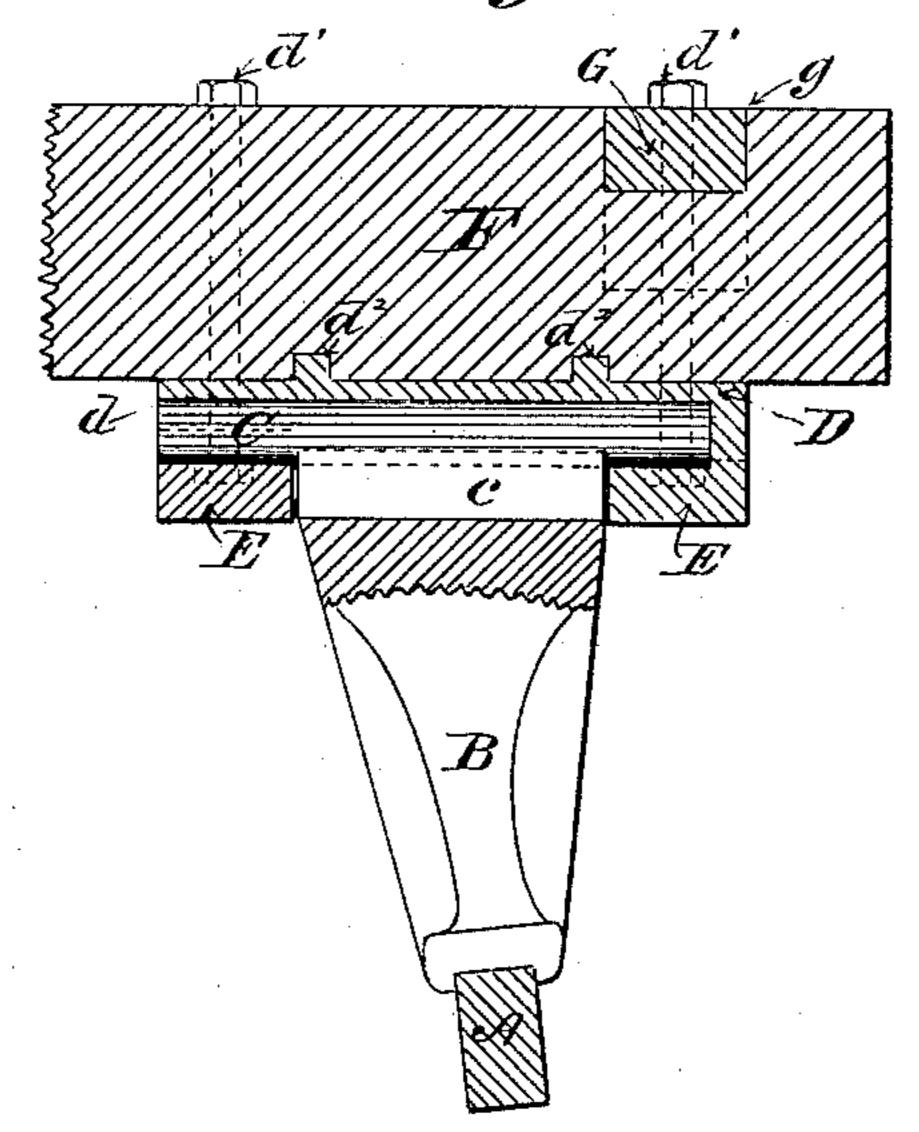


Fig. 2.



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Peter Hilger By amarathan Hisaty

## United States Patent Office.

PETER HILGER, OF ARLINGTON, ASSIGNOR OF ONE-HALF TO JOHN MALITOR, OF MINNEAPOLIS, MINNESOTA.

## SLEIGH.

SPECIFICATION forming part of Letters Patent No. 327,168, dated September 29, 1885.

Application filed June 24, 1885. (No model.)

To all whom it may concern:

Be it known that I, Peter Hilger, a citizen of the United States, residing at Arlington, in the county of Sibley and State of Minnesota, have invented certain Improvements in Sleighs, of which the following is a specification.

My invention relates, particularly, to improvements in the construction of sleigh knees and benches, and the objects I have in view are to provide an oscillating sleigh-knee that is simple and durable in construction and a bench that is provided with means for holding the end of a skid in loading logs upon the sleigh.

To this end my invention consists, generally, in the construction and combination of devices hereinafter described, and particularly

pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of a portion of a sleigh-runner with my improvement attached thereto. Fig. 2 is a transverse vertical section of the same.

In the drawings, A represents the sleighrunner, which may be of any preferred con-

struction.

B is a knee or standard, which is preferably made of cast-iron, and is secured to the runner by bolts a a, or by any suitable means. Across the upper end of the standard B is formed the dovetailed or wedge-shaped recess b, which extends the full width of the standard and has open ends, as shown.

C is a cylindrical bearing or trunnion having projecting from its under side the dovetailed key or projection c, which is adapted to fit the recess in the upper end of the stand-

ard B.

The length of the projection c is equal to the length of the recess b in the standard B, and the ends of the bearing C project beyond the sides of the standard, as shown in Fig. 2.

 $\frac{1}{45}$  D is a box having the semi-cylindrical groove d in its under side, which fits upon the trunnion C and bears thereon throughout

its entire length.

E represents two half-boxes that fit around 50 the lower portions of the ends of the bearing C and unite this bearing and the box D. One of these half-boxes is preferably formed integrally with the box D, while the other is separate and secured to the box D by 55 bolts d' d'.

The parts E fit against the sides of standard B and thereby prevent any longitudinal movement of the key c in the recess b. The box D is also provided with the pins  $d^2$   $d^2$ , which fit into corresponding holes in the under surface of the bench and aid in holding the parts together.

F is the sleigh-bench, which is of any preferred construction, and is secured to the box

D by the screws d', as described.

A transverse recess, e, is formed near the end of the bench F, and into this is fitted an attachment, G, formed preferably of castiron, and of substantially the shape shown in Fig. 1, and having a recess, g, with shoulder 70 g', and a curved projecting end, G', for receiving the end of a skid in loading logs.

The shoulder g forms a bearing against the side of the bench, and it is preferably held to the bench by the bolts d' d', that hold the 75

bench and box D together.

It will be seen that the construction is very simple and durable, that all the parts may be easily formed, and that the knee may oscillate until the end of the standard strikes 80 the under surface of the box D.

It will also be seen that while the knee is in use the bearing C forms practically one solid structure with the main part B, but that in case the bearing C is broken, or after it 85 has become worn, it may be readily removed and another bearing substituted.

I claim as my invention—

1. The combination, with the knee B, having in its top the open dovetailed groove b, 90 of the bearing C, having cylindrical ends and on its under side the dovetailed projection c, fitting the groove b, the boxes D E, fitting said bearing, said boxes E projecting over the edges of the groove b and holding 95 the projection c in the groove, and bolts d'd', all substantially as described.

2. The combination, with the knee B, having groove b, bearing C, having projection c, boxes D E, bench F, skidding attachment G, not having shoulder g', and curved end G', and bolts d' d', all substantially as described.

In testimony whereof I have hereunto set my hand this 12th day of June, 1885.

PETER HILGER.

In presence of— T. Streissguth, Christ. Klinkert.