

(No Model.)

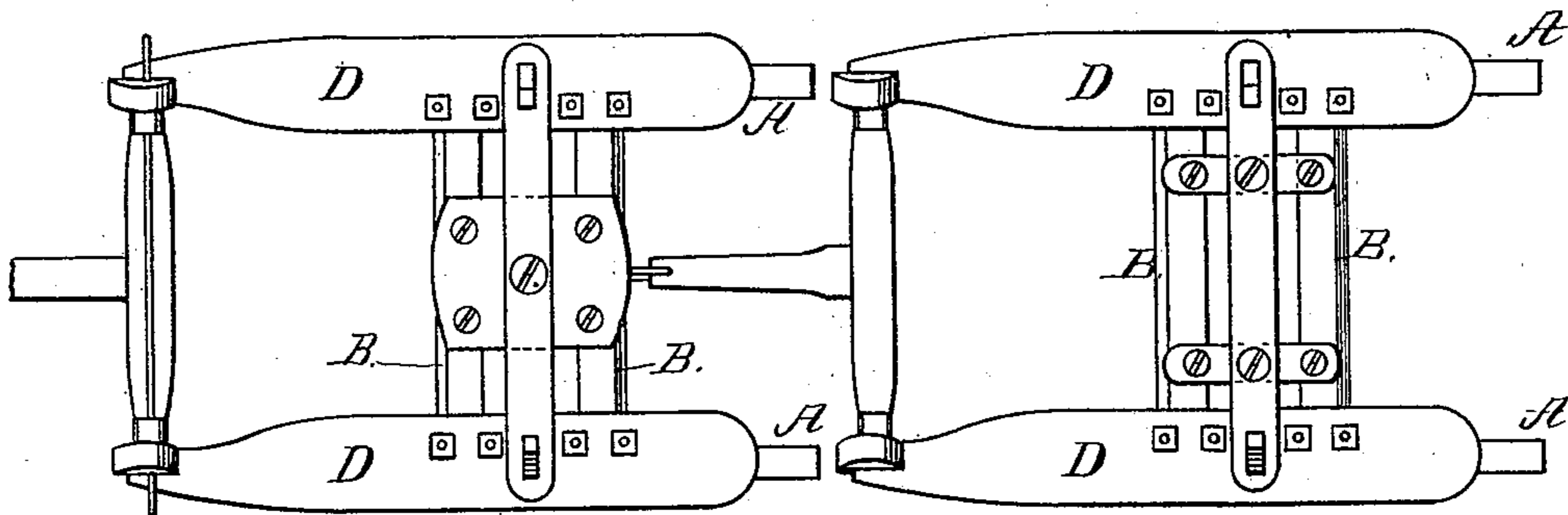
C. COGGSWELL.

Bob Sled.

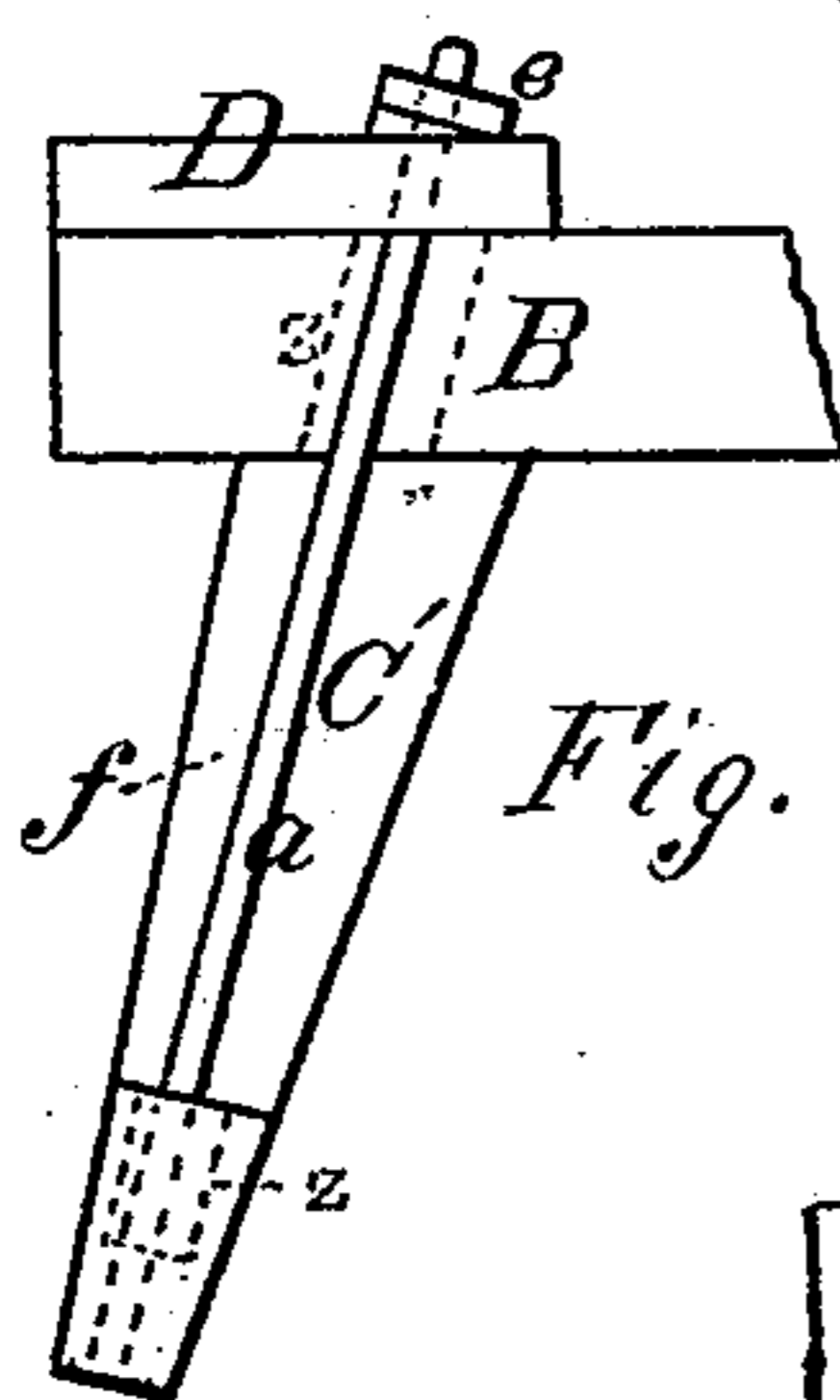
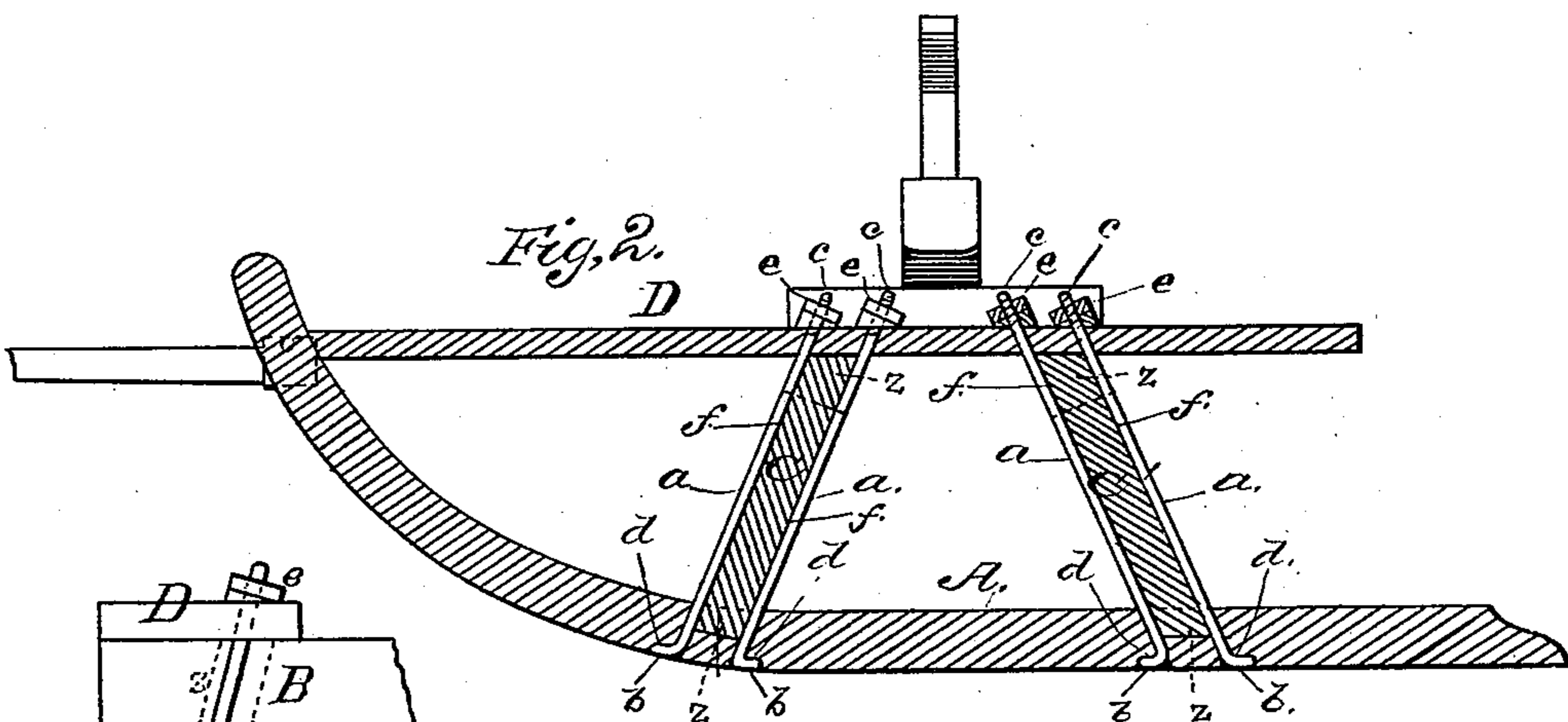
No. 234,963.

Patented Nov. 30, 1880.

*Fig. 1.*

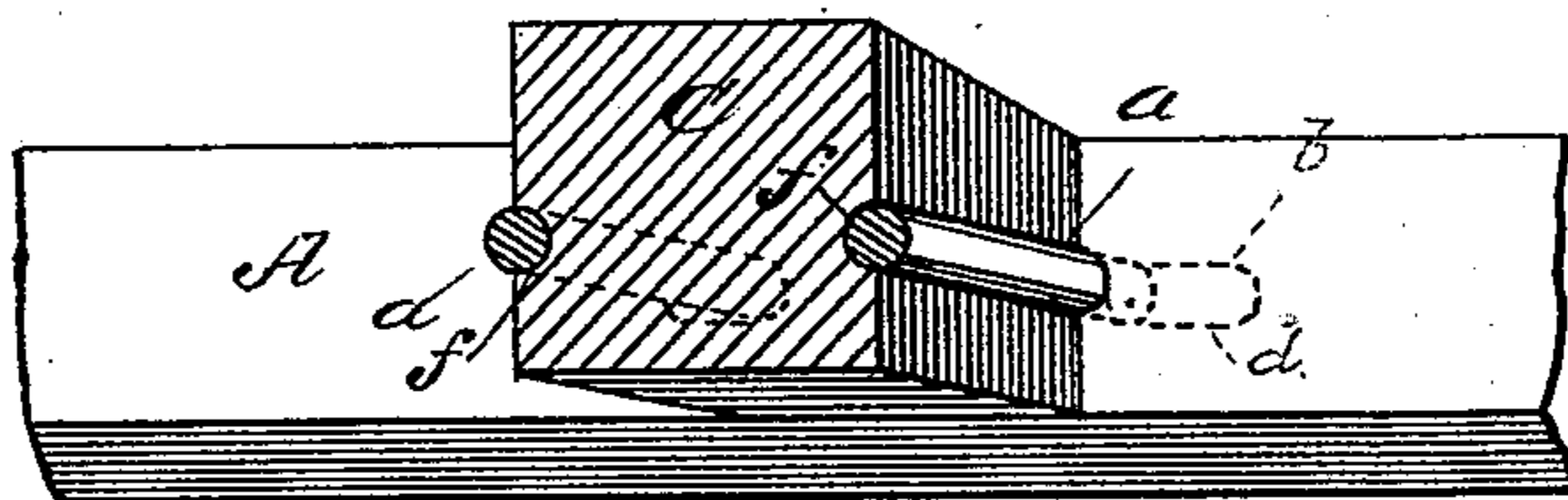


*Fig. 2.*

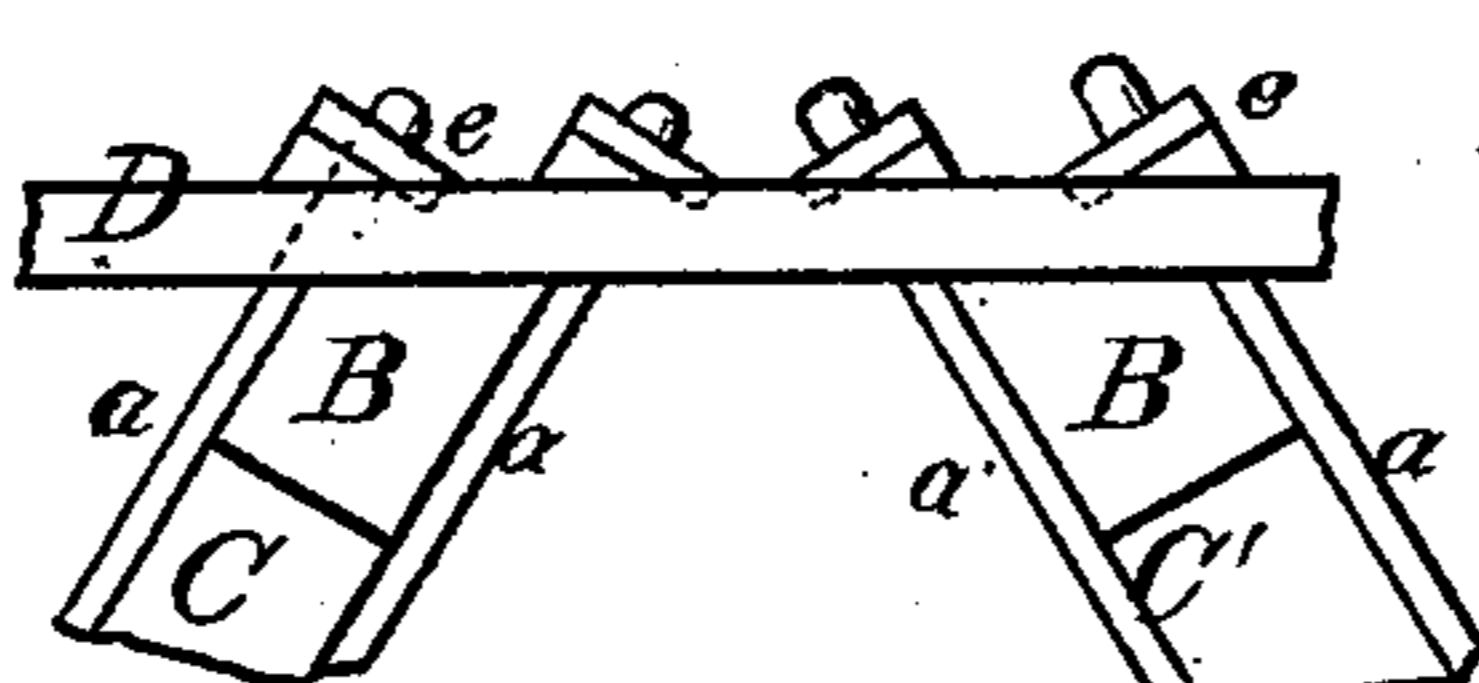


*Fig. 5.*

*Fig. 3.*



*Fig. 4.*



WITNESSES

*Villette Anderson.*

*Frank J. Masi.*

INVENTOR

*Chas. Coggs well*

*by C. W. Anderson*

*his* ATTORNEY

# UNITED STATES PATENT OFFICE.

CHARLES COGGSWELL, OF DODGE CENTRE, MINNESOTA.

## BOB-SLED.

SPECIFICATION forming part of Letters Patent No. 234,963, dated November 30, 1880.

Application filed April 22, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES COGGSWELL, of Dodge Centre, in the county of Dodge and State of Minnesota, have invented a new and valuable Improvement in Bob or Draft Sleds; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a top view of my improved sled. Fig. 2 is a longitudinal section thereof. Fig. 3 is a sectional detail, and Figs. 4 and 5 are details.

This invention has relation to bob or draft sleds or sleighs; and it consists in the construction and novel arrangement of the beveled forward and backward sloping cross-beams, the inclined knees between the runner and cross-beam and connected thereto by end tenons, and the detachable tie-rods extending through the runner and rave, and the securing-nuts on the ends of said rods above the rave, as hereinafter shown and described.

In the accompanying drawings, the letter A designates the runners; B, the inclined cross-beams; C C', the knees, which slope, respectively, forward and backward, as shown, having similar inclination to that of the cross-beams; and D, the raves or side timbers of the sled. The knees C C' are designed to afford the necessary support from the runner to the cross-beam, and the sides of the latter also slope forward and backward in line with the sloping faces of the knees. The upper surfaces of the cross-beams are beveled to receive the raves, in the manner shown.

The knees are provided with tenons *z* at each end, which are let into mortises in the runner and cross-beam, but are designed to be detachable therefrom. The knees being also inclined outward and downward laterally on each side, it is apparent that their position is such as to afford a strong bracing support against rearward, forward, or lateral strain.

*a a* indicate the metallic tie-rods, which have at their lower ends hooks or heads *b*, and at their upper ends screw-threaded portions *c*. These tie-rods extend through the runner, which is provided with recesses *d*, to receive the heads or hooks at the lower ends of said rods, along the front and rear faces of each knee and cross-beam through the rave, and are drawn forcibly upward and secured by the nuts *e*, which work on the threaded portions *c* against the upper surface of the rave. Usually the front and rear faces of the knees and cross-beams are recessed or grooved, as indicated at *f*, to receive the tie-rods, which are designed to lie in close contact with said parts and serve an important purpose as side braces to the sled.

This construction enables the sled to be readily taken apart for repairs, when the nuts *e* are unscrewed from the tie-rods, and the repairing can be done by the blacksmith or farmer without the necessity of having recourse to a mechanic especially skilled in the construction of sleds. Economy in the cost of construction is also an important object of this invention.

What I claim, and desire to secure by Letters Patent, is—

In a sleigh-runner, the combination, with the runner and rave, of the forwardly and backwardly sloping knees C C', having end tenons, *z*, and the beveled cross-beams B, having similar inclinations to that of the cross-beams, the tie-rods *a a*, having end hooks or heads, *b*, and extending through the runner and rave in contact with the front and rear inclined faces of the knees and cross-beams, and the securing-nuts *e*, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHARLES COGGSWELL.

Witnesses:

DENNIS KEELER,  
JAS. A. GARVER.