

(No Model.)

W. H. METHERELL & A. KEISER.

SHIFTING THILL FOR SLEIGHS.

No. 323,821.

Patented Aug. 4, 1885.

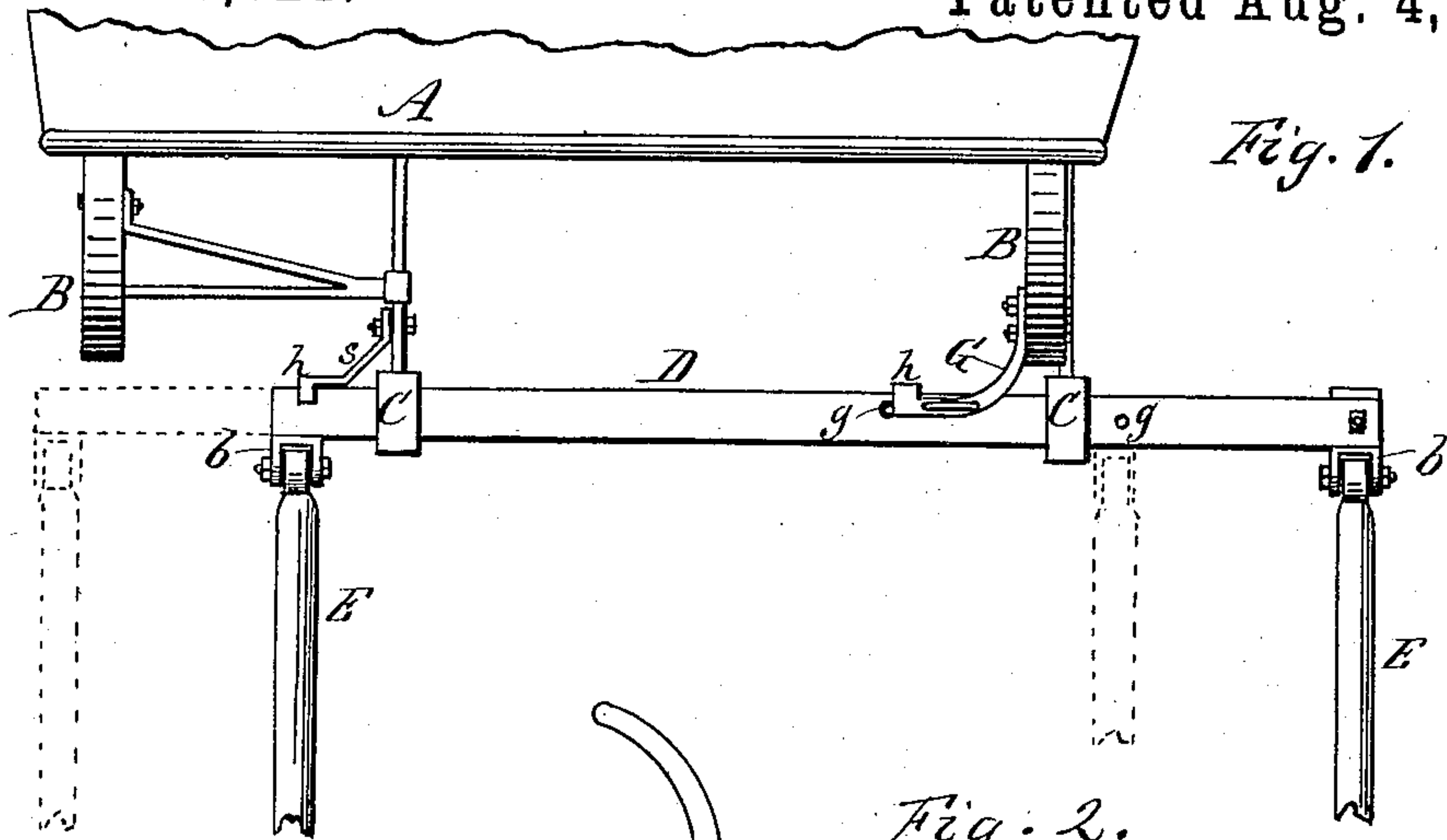


Fig. 1.

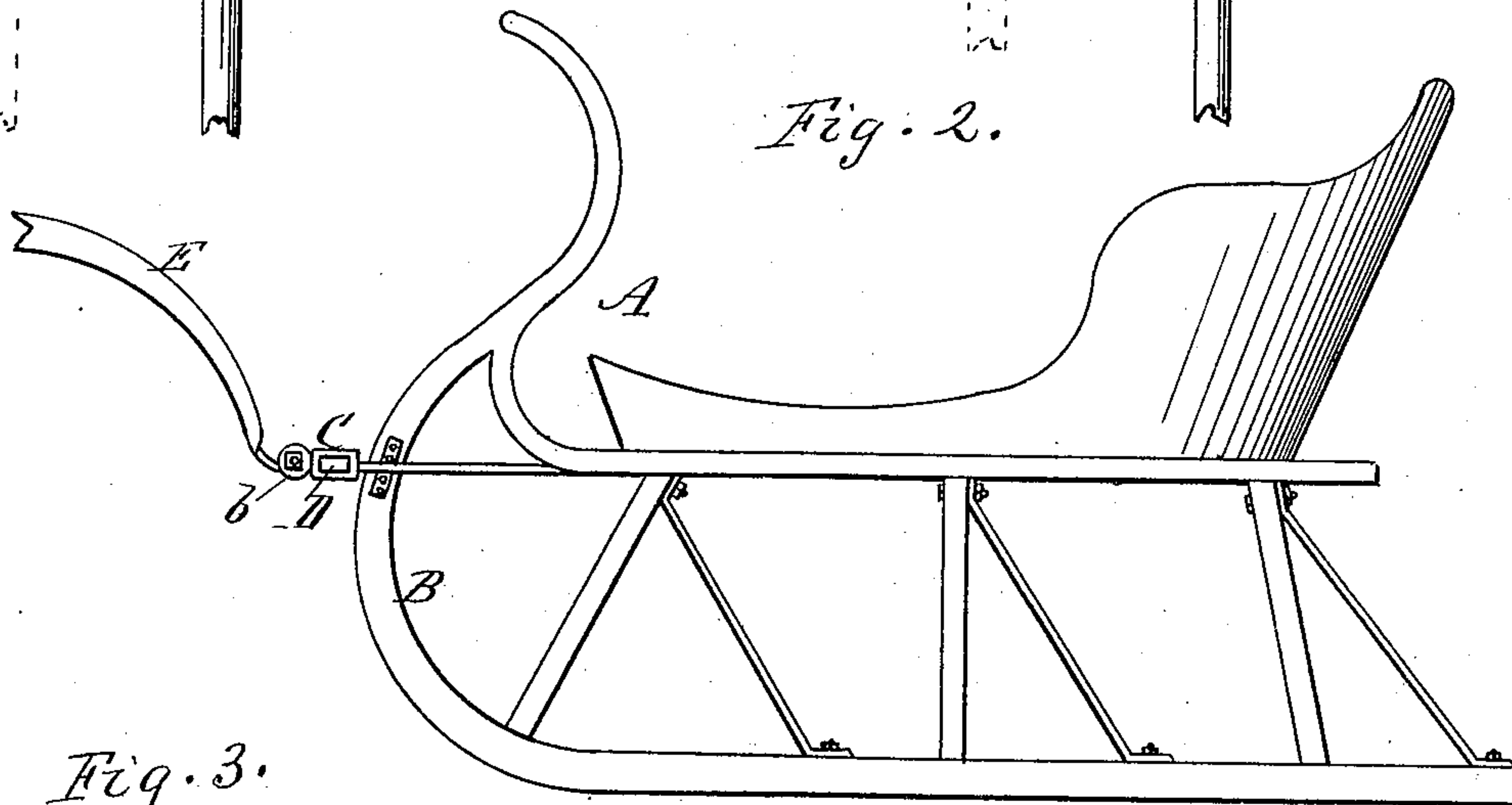


Fig. 2.

Fig. 3.

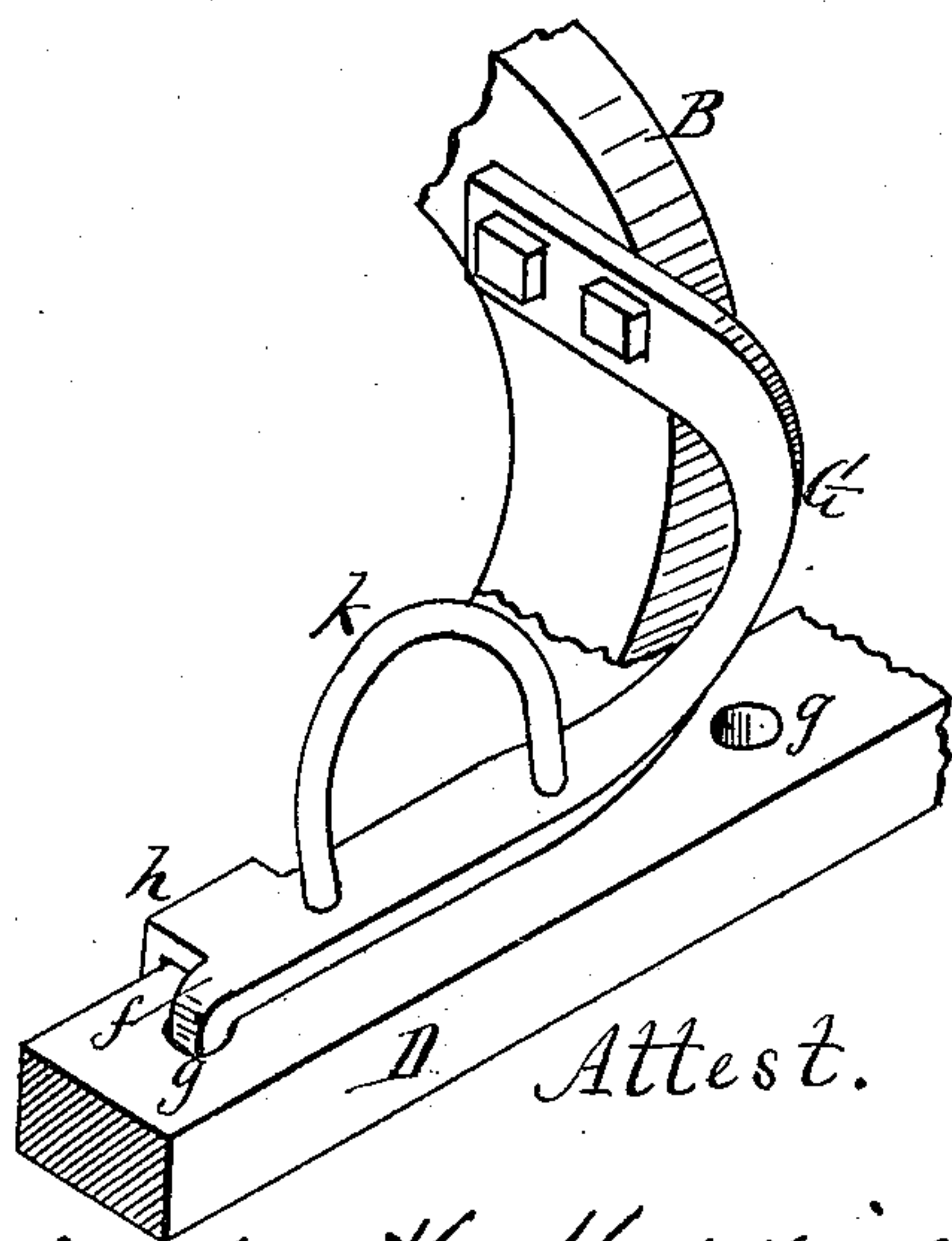
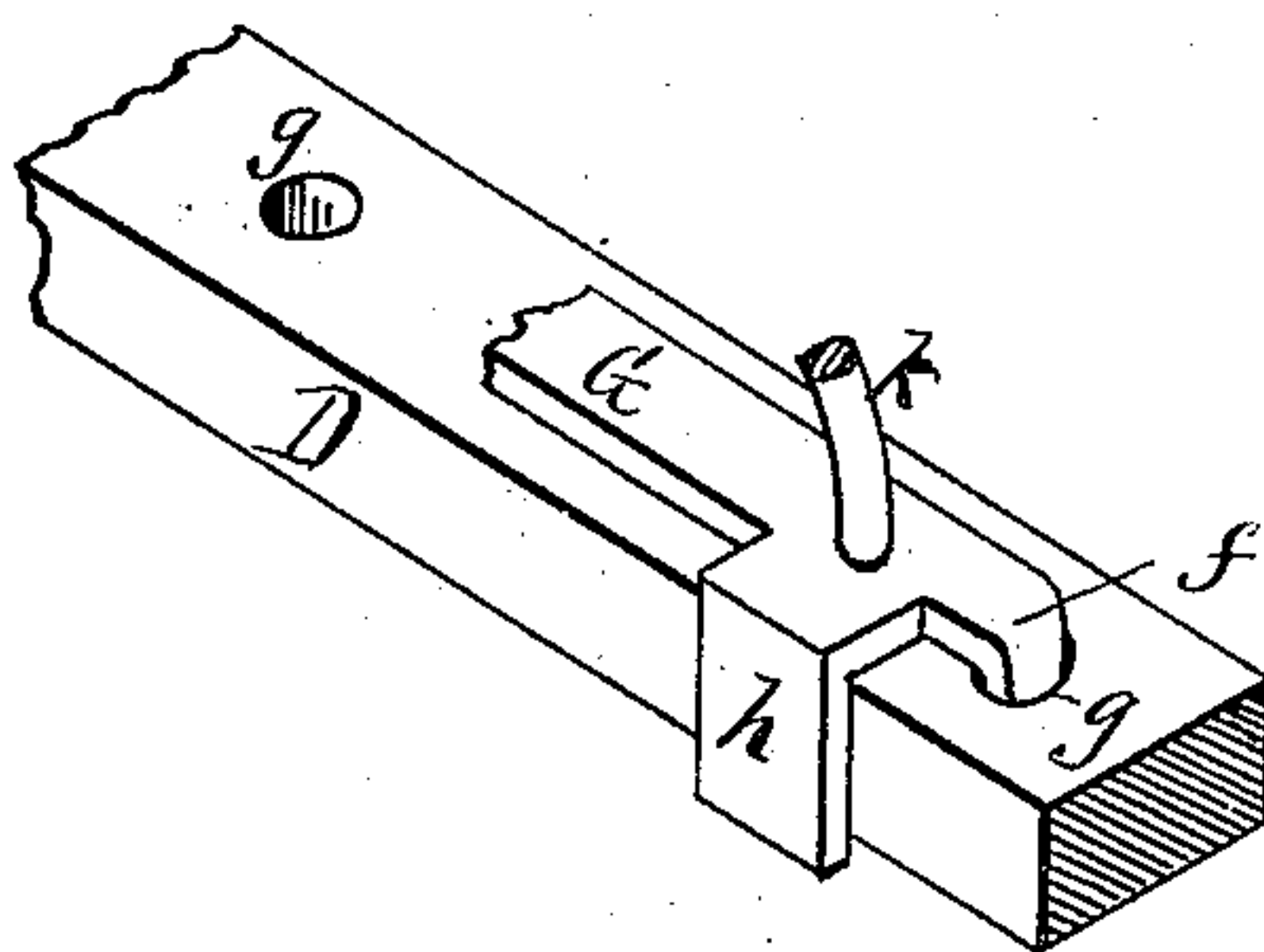


Fig. 4.



Attest.

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UNITED STATES PATENT OFFICE.

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SHIFTING THILL FOR SLEIGHS.

SPECIFICATION forming part of Letters Patent No. 323,821, dated August 4, 1885.

Application filed February 19, 1885. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM H. METHERELL and ANDREW KEISER, both of West Brighton, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Shifting Thills for Cutters and Sleighs; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view showing our improvement attached to the front of a cutter. Fig. 2 is a side elevation of a cutter, showing our improvement. Fig. 3 is a perspective view of a portion of the shifting bar and the spring for holding it in place. Fig. 4 is a similar view, looking on the opposite side.

Our improvement relates to that class of shifting thills in which the shifting bar slides endwise through eyes or sockets attached to the runners by braces, and is secured in place by a locking device. In this invention but a single bar is used, the thills being attached directly to the bar, and the latter sliding through sockets attached directly to the runners, thus dispensing with the additional bar which is generally used at the rear of the thills.

The invention consists in the combination, with such a shifting bar, of a curved spring attached to one of the runners, passing down over the bar, bearing on top of the same, provided with a point that strikes into holes in the bar to hold the latter in place at either adjustment, provided on its rear side with a lug that presses against the rear of the bar, and provided also with a handle by which it may be operated, all as hereinafter described. The construction is such that the spring serves the double purpose of a lock to hold the shifting bar in either position and an elastic presser to hold down and forward against the bar and pack it tightly in the sockets, as will be more fully set forth.

In the drawings, A shows the cutter or sleigh body, and B B the runners. C C are two sockets or eyes attached to the body by stays *a a*, and D is a steel bar which rests therein and slides forward and back. At the ends of the bar are couplings *b b*, to which are attached the thills E E. By this means the cross-bar that is generally used at the rear of the thills

to connect and stiffen them is dispensed with, and the shifting bar is brought up nearer to the cutter, and the construction is greatly simplified.

Our improvement is as follows: G is a flat spring made of curved form, the upper end being bolted or otherwise attached to the runner, the lower end extending in longitudinally over the shifting bar and bearing thereon, as shown in Fig. 3. On the inner end of the spring is a downwardly-turned point, *f*, that enters either of the holes *g g* of the shifting bar when in proper position, and on the back is a downwardly-projecting lug, *h*, that rests behind the bar and presses it forward in the socket. On top is a handle, *k*, by which the spring can be raised at any time to disengage the point from the hole to shift the bar. To shift the bar the spring is simply raised till the point is disengaged, when the bar can be slid along in the sockets, and when the next hole, *g*, comes in position the point will strike into it, securing the bar in the new position. The two positions are indicated by the full and dotted lines in Fig. 1. *s* is a simple spring attached to the other runner and bearing against the other end of the shifting bar, and having a similar lug, *h*, resting behind the bar, by which the bar is pressed up to place in its socket.

A special advantage in this invention is the spring G, constructed as described—that is, of the curved form shown—the lower end extending longitudinally, having a long bearing on top of the bar, provided at its end with the downwardly-turned point for entering the hole in the bar, a lug in the rear which embraces and bears against the back of the bar, and a handle by which it is raised. It thus serves a twofold purpose—first, it serves as a lock to the bar; and, second, it exerts an elastic pressure both downward on top of the bar and forward against it, thus packing the bar tightly in its socket. In other thills now in use a spring is used behind the bar, serving as a stop to a shoulder on the bar, but exerting no pressure on the bar; hence it is not the equivalent of our invention.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—

In shifting thills for cutters and sleighs, the

combination, with the bar D, resting in sockets C C and provided with holes *g g*, of the curved spring G, constructed with a horizontal length extending longitudinally over the
5 bar, a downwardly-turned point, *f*, which enters the holes *g g*, a lug, *h*, at the rear that rests behind the bar, and a handle, *k*, for operating the spring, the spring serving the double purpose of a lock to hold the bar and a presser to
10 press it downward and forward in its socket, as herein shown and described.

In witness whereof we have hereunto signed our names in the presence of two subscribing witnesses.

W. H. METHERELL.
ANDREW KEISER.

Witnesses:

R. F. OSGOOD,
WM. J. MCPHERSON.