

J. T. CLARKSON.
Sleigh.

No. 218,114.

Patented Aug. 5, 1879.

Fig. 1.

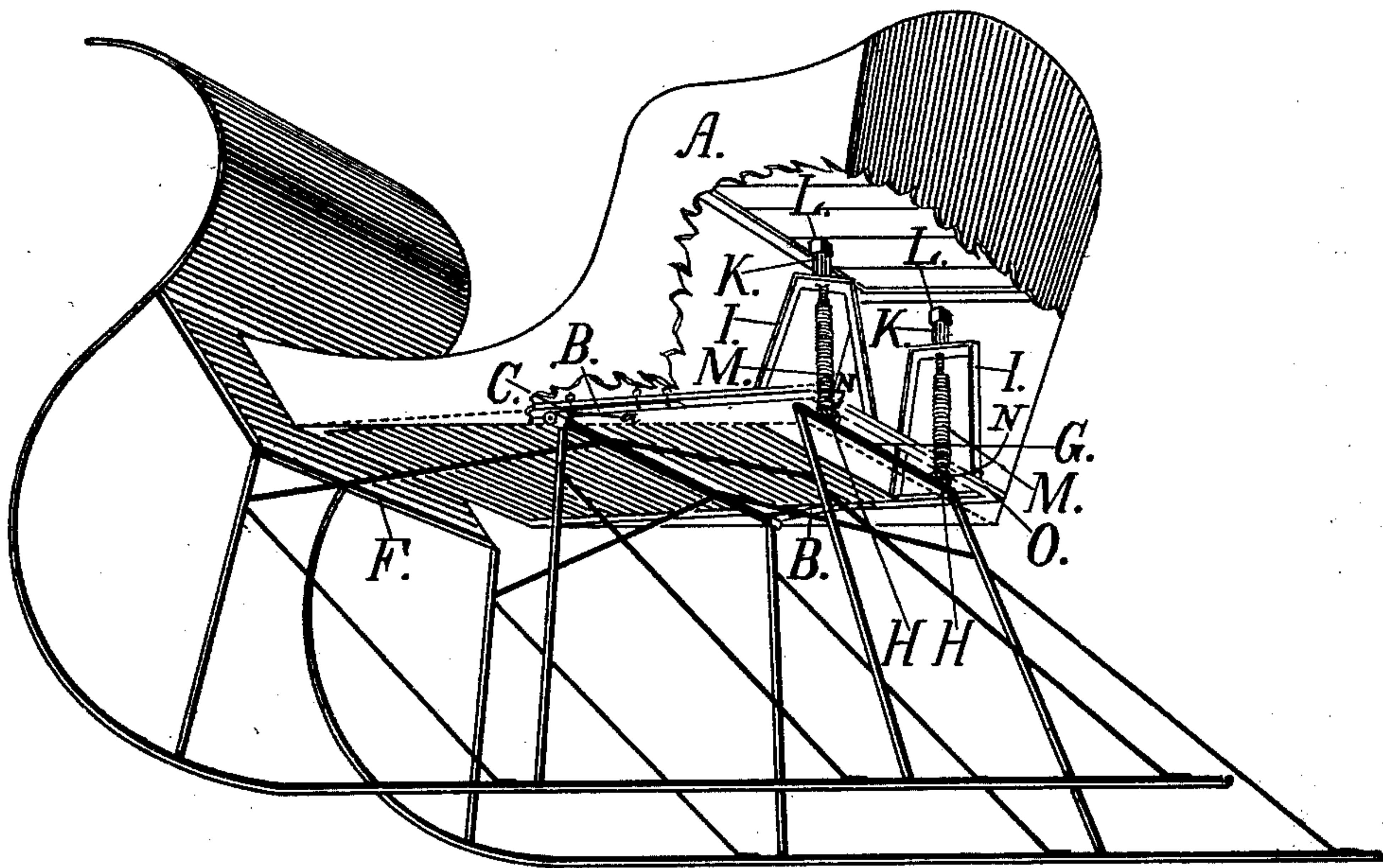


Fig. 2.

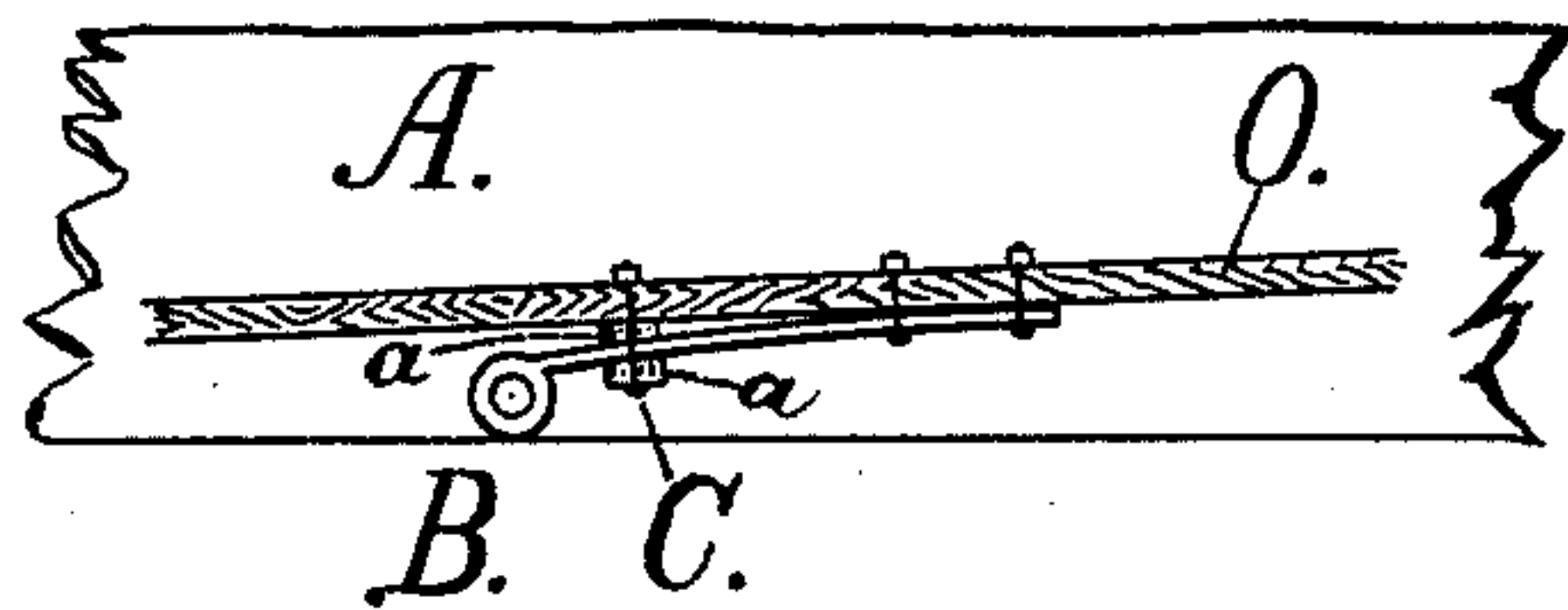
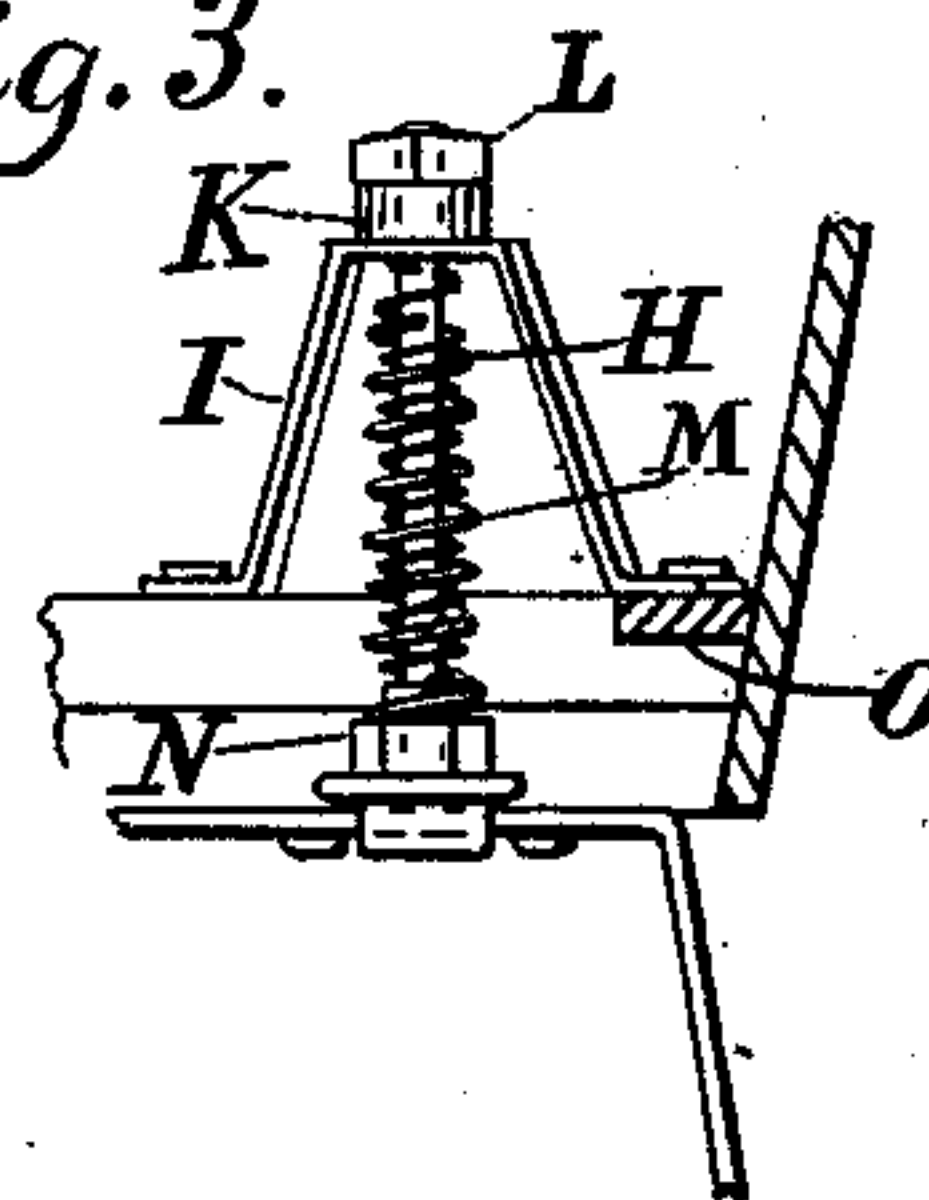


Fig. 3.



Witnesses:

William F. Clarke.

Ralph E. Clarkson.

Inventor:

Joseph T. Clarkson.

UNITED STATES PATENT OFFICE.

JOSEPH T. CLARKSON, OF AMESBURY, MASSACHUSETTS.

IMPROVEMENT IN SLEIGHS.

Specification forming part of Letters Patent No. **218,114**, dated August 5, 1879; application filed March 27, 1879.

To all whom it may concern:

Be it known that I, JOSEPH T. CLARKSON, of Amesbury, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Sleighs, of which the following is a specification.

The object of my invention is to construct a sleigh which will run without the jolt and jar experienced in riding in the ordinary sleigh; and the invention will be fully described in connection with the accompanying drawings, and specified in the claims.

In the accompanying drawings similar letters of reference indicate like parts.

Figure 1 is an elevated perspective view of a sleigh with my improvements, as viewed from the left and rear, a portion of the back and left-hand panels being shown as broken away to afford a view of the arrangement of the coiled springs within the body. Fig. 2 is a longitudinal sectional view, showing the manner of attaching the body to the frame and the lowering of the back portion of the panel below the body. Fig. 3 is a detached view, illustrating the guide-rods and the elastic buffers and the coiled springs, which are arranged on such rods.

The body A is connected with the frame by spring-bars B, one end of which is bolted to the sill of the body, the other end having an eye to receive the spindles from the central cross-bar of the running part. A headed bolt or rod, C, passes through the spring-bar into the sill on this bolt or rod. Both above and below the spring-bars are placed rubber cushions *a*, the object being to avoid all direct contact between the body and the frame, and at the same time hold the body securely in place. The body is hung so as to move up and down in front inside the front posts and cross-bar F.

Apertures are made through the bottom of the body under the seat, so that the springs may be placed there out of sight. These springs rest upon the posts or cross-bar G, and are held in an upright position by guide-rods H, which are hinged upon the posts or cross-bar, so as to move backward and forward as the body goes up or down. Supports I are attached to the sill, and through these the

guide-rods H freely pass, while the springs bear against the supports. Above the supports I springs K are placed on the guide-rods. These are held in place by the nuts L on the ends of guide-rods. The springs K are to prevent the tipping forward of the body in getting in and out of the sleigh, and to take up the rebound from the lower springs, M. The springs M are re-enforced by using two springs, one longer or sitting higher than the other, so that when only one person is riding the load will be carried by the upper spring. When the load is heavier it will bear upon all the springs and ride as easily as upon a part of them.

Rubber cushions N are placed upon the base of the guide-rods to prevent any rattling of the springs. The sill O is attached to the body, so that the panel at the back and sides will be below the sill, gradually tapering toward the front until flush with the sill. The object of this is to have the body present a level appearance when at rest, while, in fact, the seat will be slightly elevated.

I do not claim hanging or hinge bars for connecting the body to the frame, when such bars are pivoted at one end and connected with an elastic or yielding attachment or device at the other, and which are thereby allowed to change their longitudinal position relatively to the body, my invention in such behalf consisting in a hanging bar which is itself elastic, and which at one end is positively attached either to the body or frame, and at the opposite end is pivoted to the other such part.

What I claim is—

1. In a sleigh having a tilting or pivoted body, the elastic bars B, bolted to the sills O oblique to the line thereof, and pivoted to the frame, substantially as specified.

2. In a tilting or pivoted top sleigh, the elastic buffers *a a*, arranged on the bolt C on each side of the elastic bars B, and between the pivotal connection of such bars and their positive connection with the body, substantially as specified.

3. In a sleigh having a pivoted tilting top, the combination of a vibrating guide-rod, H, pivoted to the frame by a fixed pivot, and

spiral spring M, arranged upon such rod, and to be compressed and expanded independently thereof, substantially as specified.

4. The combination of a pivoted guide-rod, H, support I, and coiled spring M, substantially as and for the purposes specified.

5. In a sleigh-body, the sills O, arranged oblique to the lower edge of the side panels of body A, substantially as specified.

6. In a tilting-top sleigh, the combination of guide-rods H, supports I, and the elastic buffers K, arranged upon the rods between nuts L and supports I, substantially as specified.

7. The combination of guide-rods H, the coiled springs arranged thereon, and the elastic cushions N, arranged centrally on the rods,

and having a base-flange to receive and support the coils of the spring, substantially as specified.

8. In a tilting-body sleigh, the described combination of the body A, the frame, and the springs M, supported upon the frame and extending within the body, substantially as specified.

9. In a tilting-top sleigh, the combination of body A, spring-bars B, coiled springs M, supported upon the frame, the guide-rods H, and supports I, all substantially as specified.

JOSEPH T. CLARKSON.

Witnesses:

WILLIAM T. CLARKSON,
GEORGE H. BRIGGS.