

(No Model.)

R. B. AMES.
SLED.

No. 412,062.

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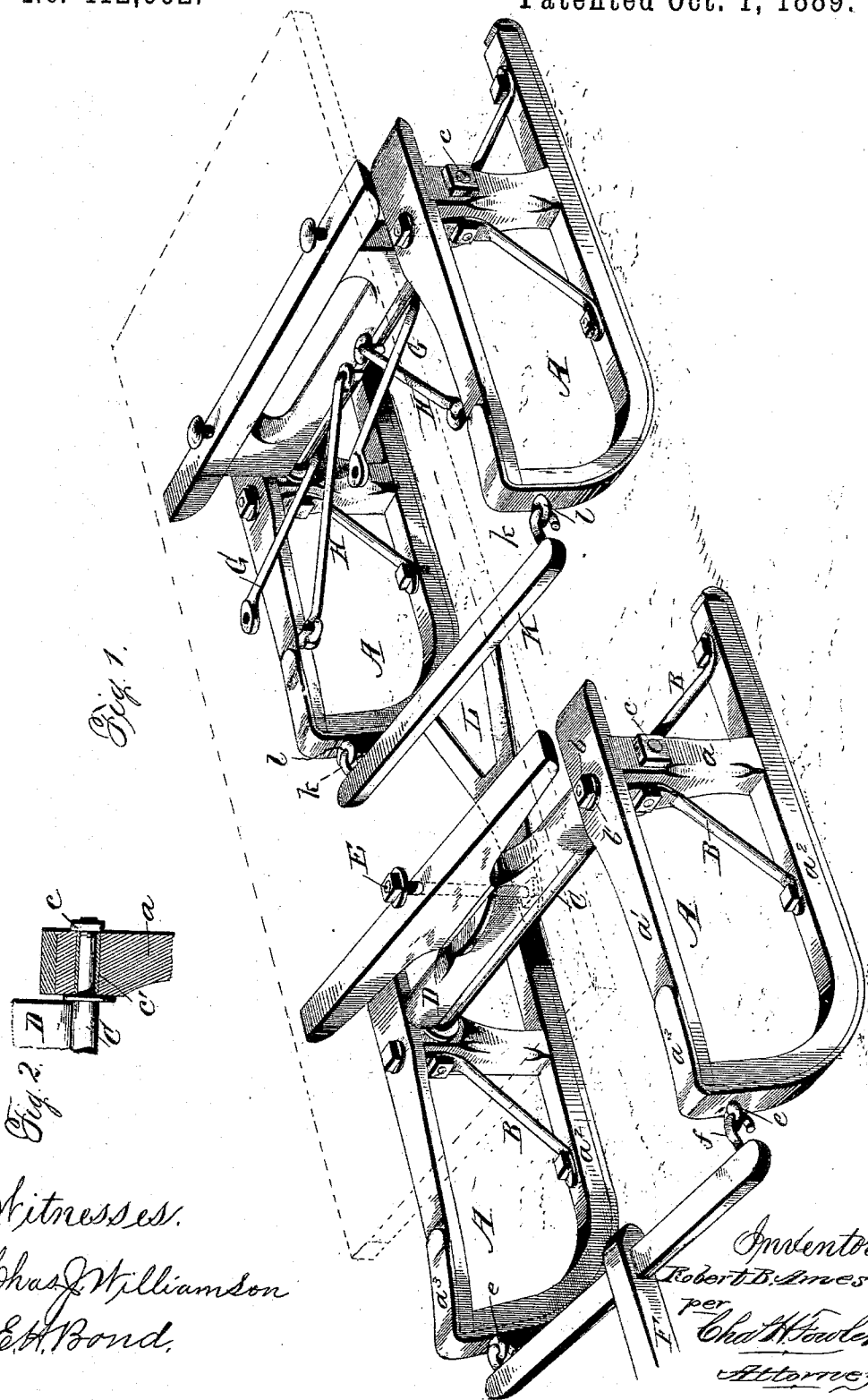


Fig. 1.

Fig. 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

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SLED.

SPECIFICATION forming part of Letters Patent No. 412,062, dated October 1, 1889.

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To all whom it may concern:

Be it known that I, ROBERT BRIGHAM AMES, a citizen of the United States, residing at Marlborough, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Sleds; and I do hereby declare that the following is a full, clear, and exact description 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.

This invention relates to certain new and useful improvements in sleds; and it has for its object to provide a simple, strong, and durable sled, wherein each runner is free to automatically adjust itself to any inequalities in the road without in any way interfering with its mate. The novelty resides in the peculiarities of construction, and the novel combinations, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view of a double runner constructed in accordance with my invention. Fig. 2 is a sectional detail showing the connection of the axle with the post of one of the runners.

Referring to the details of the drawings by letter, A designates a runner, and, as each is of the same make, a description of one will suffice for all. The runner is formed of the post *a*, the rave *a'*, and the runner *a*². The iron of the runner extends upon and a short distance along the top of the rave, as shown at *a*³. Each post is braced by means of two brace-irons B, the forward one of which has a vertical portion which passes through the rave and receives upon its end a nut *b*, a washer *b'* being used to prevent wearing of the parts.

Each two runners are connected together as follows: C is a shaft or rod which passes loosely through the posts of the two runners, and upon each end outside the post is provided with a nut *c*. The openings in the posts through which the shaft passes are provided with a sleeve *c'*,

as shown in Fig. 2, in which the reduced ends of the shaft loosely turn, each end of the shaft being provided inside the post with a collar or flange *d*, as shown. On the shaft inside these collars is secured the head-block D, through which passes the king-bolt E, the squared head of which is secured in a socket in the under side thereof between the shaft and the head-block, as shown in Fig. 1. By this construction each part of the runner is free to turn on its end of the shaft independent of the other runner, so that in passing over rough roads there is no straining and twisting of the parts.

The forward ends of the front runners are provided with suitable eyes *e*, into which are hooked the hooks *f* of the pole F.

On the rear head-block are the brace-bars G, having at their free ends eyes by which they are secured to the under side of the platform. (Represented by dotted lines in Fig. 1.)

H are hooked rods pivotally attached to the rear runners, to the raves thereof, and their free ends adapted to engage eyes on the rear head-block to steady and strengthen the parts. The front and rear bolsters are placed upon these head-blocks, as shown in Fig. 1, and the platform rests upon the bolsters.

The rear and front runners are connected together by means of the cross-bar K, which is provided at its rear edge with the hooks *k*, which engage the eyes *l* on the front ends of the rear runners, the said cross-bar having attached thereto a V-shaped iron L, the forward end of which is pivotally connected with the king-bolt, as shown. This allows the parts to adjust themselves freely each independent of the other.

By the above construction the whole device may be readily taken apart for storage or other purposes. The hinge is brought directly over the runner and at the bottom of the bearer, provides a light, yet durable, sled, and one that will carry a load steadily and with little power over rough places and side hills.

What I claim as new is—

1. The combination, with the runners, of the shaft connecting the same, having reduced ends passed through openings in the posts of the runners, nuts on the ends of the shaft, and sleeves *c'* in the openings in the posts and through which the reduced ends of the

shaft turn loosely, as and for the purpose specified.

2. The combination, with the runners, of the shaft passed loosely through sleeve-openings in the posts of the runners and provided
5 upon its ends with nuts, the collars on the shaft inside the posts, and the head-block on the shaft inside the collars, substantially as shown and described.

10 3. The combination, with the runners, the shaft connecting the same and free to turn loosely in the posts thereof independent of

each other, of the head-block on the shaft, and the king-bolt passed through the head-block and having its lower end securely held there- 15 in, as set forth.

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

ROBERT BRIGHAM AMES.

Witnesses:

RUFUS O. CLARK,
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