(No Model.) 2 Sheets—Sheet 1.

J. H. JACKSON.

BOB SLEIGH.

No. 516,094. Patented Mar. 6, 1894.

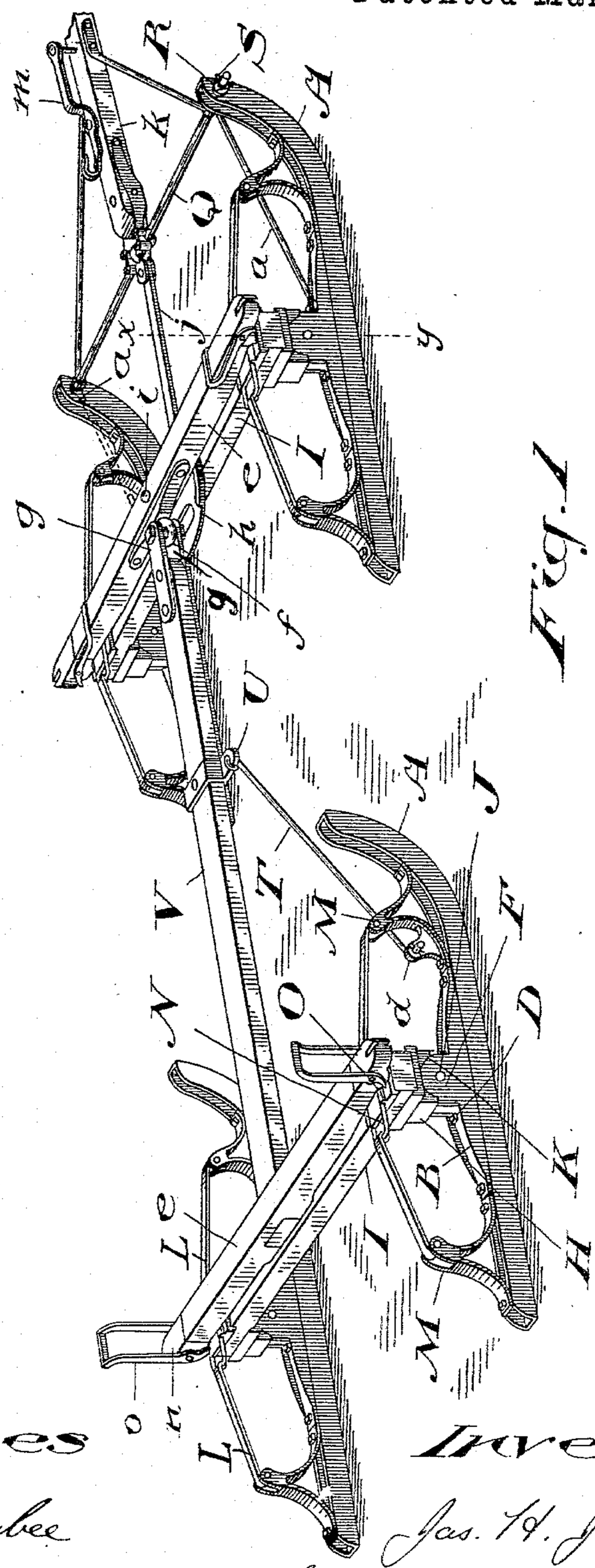

Fig. 1.

Witnesses

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(No Model.)

2 Sheets—Sheet 2.

J. H. JACKSON.

BOB SLEIGH.

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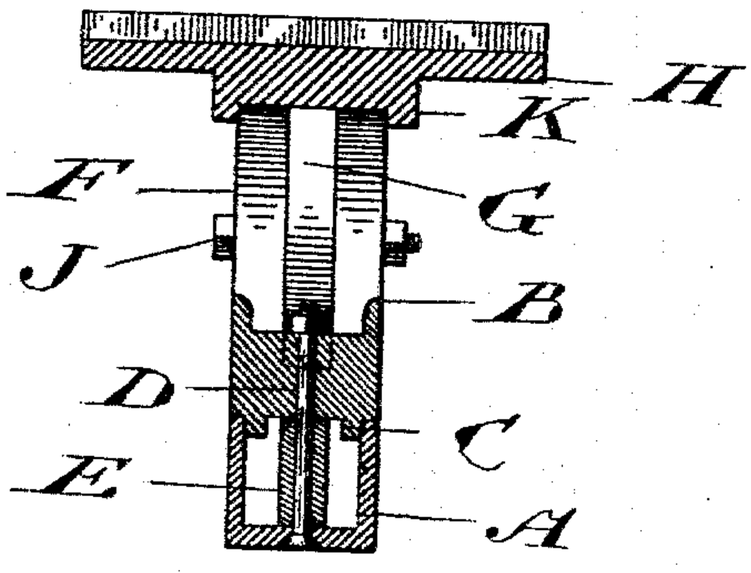

Fig. 2

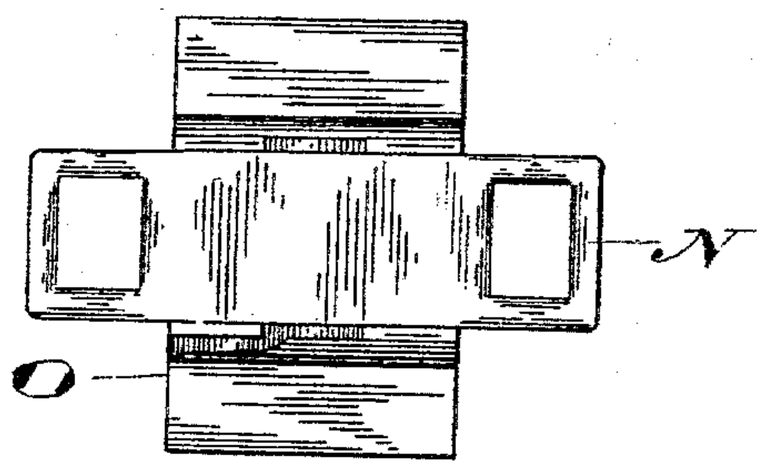

Fig. 3

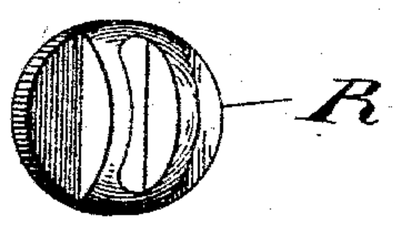

Fig. 4

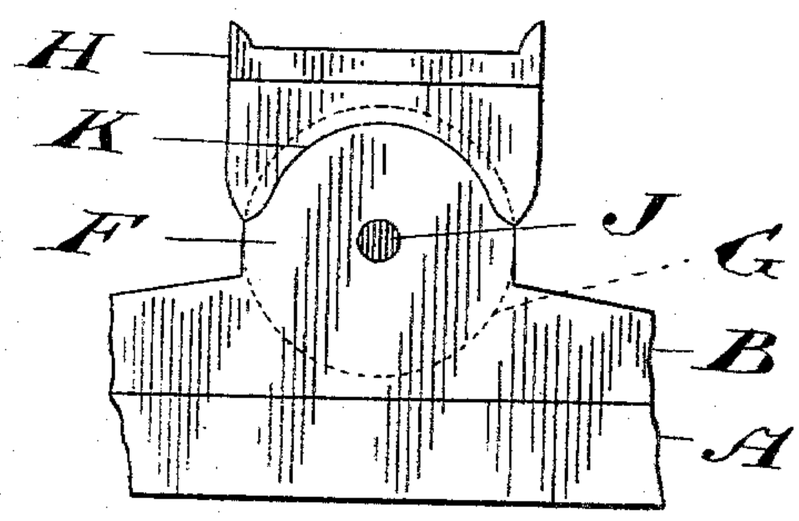

Fig. 5

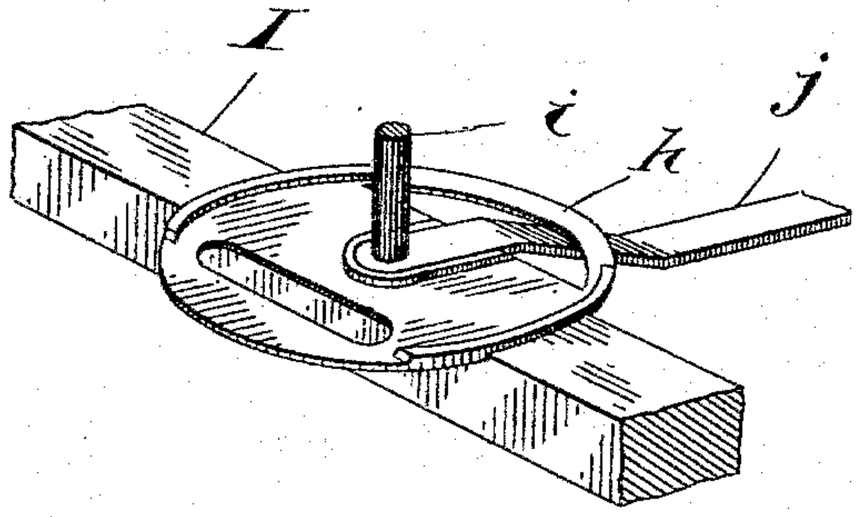

Fig. 6

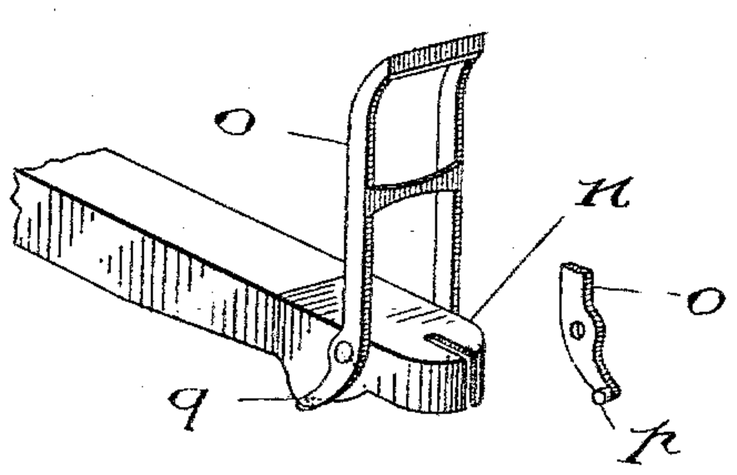

Fig. 7

Witnesses

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UNITED STATES PATENT OFFICE.

JAMES HENRY JACKSON, OF KEADY, CANADA.

BOB-SLEIGH.

SPECIFICATION forming part of Letters Patent No. 516,094, dated March 6, 1894.

Application filed July 15, 1893. Serial No. 480,565. (No model.)

To all whom it may concern:

Be it known that I, JAMES HENRY JACKSON, of the village of Keady, in the county of Grey, in the Province of Ontario, Canada, have invented a certain new and Improved Bob-Sleigh, of which the following is a specification.

The object of the invention is to construct a strongly made bob-sleigh in which each runner will adjust itself independently of the others with a minimum of motion to the bents, and it consists, of bobs in which blocks are bolted to the center of each runner in which blocks the pivot points of the runners are formed as close to the runners as possible and it further consists in the construction and arrangement of parts as hereinafter more particularly described.

Figure 1, is a perspective view of a pair of bobs constructed and connected together in accordance with my invention. Fig. 2, is a cross-section through *x*—*y*, Fig. 1. Fig. 3, is an enlarged detail showing the manner of connecting the raves together. Fig. 4, is an enlarged detail of the washer used on the bar connecting the two front runners. Fig. 5, is a side elevation of the pivoted connections between the runners and the bents. Fig. 6, is a detail showing the strap connecting the front bar with the king bolt. Fig. 7, is a detail of the bolster stake.

In the drawings, A, are the runners made of light channel steel or if preferred, of wood.

B, are blocks, one of which is connected to each runner. The bottom of each block has two lips C, formed on it to fit into and butt against the sides of the channel steel runner A, in order to hold the said block from twisting. Each block B, is bolted to the runner with bolts D, having their heads counter-sunk in the bottom of the runner. A sleeve or ferrule E, is provided for each bolt D, to prevent the runner being drawn out of shape when the nuts are screwed up (see Fig. 2). Cheeks F, extend from each block B, leaving a space between the two cheeks for the reception of a projection G, which extends from the bottom of the plate H, which is shaped as indicated to support the bent I. A hole is made through the cheeks F, and the projection G, through which hole a pin or bolt J, is inserted. The bottom of the projection G, is cut on a circle drawn from the center of the pin or bolt J, and the bottom of the block B, between the cheeks F, is likewise formed so that the projection G, may rest and rock upon the said rounded bottom. The top of each cheek F, is also rounded on a circle struck from the center of the pin or bolt J, and the plate H, between its flanges K, is formed to receive the top of the cheeks. In this way the weight is carried on the bottom of the projection G, and on the top of the cheeks F, while the lateral movement is resisted by the cheeks F, butting against the flanges K. By this arrangement, the center about which the runners rock is very close to the ground and the runners will accommodate themselves to the irregularities of the ground without imparting an appreciable amount of backward or forward throw to the bents.

In order to connect the raves M, I provide a link N, to which the raves are flexibly connected by the links L. The link N, slides in the guide O, which is fast to the bent I, as indicated. This plan of connecting the raves together permits their use for strengthening the runners A, without interfering with the free rocking movement of the said runners. The raves are bolted to the runner in a similar manner to that used for the blocks B.

The runners of the front bob are connected together by the rod Q, which passes through elongated holes made in the runners A. On the outside of each runner, a washer R, (see Fig. 4) is placed and a pin S, is placed through each end of the rod Q, outside the washer R. This connection is provided so that the runners will be held together, but at the same time be permitted to rock independently of each other. So as to carry the draft to the middle of the forward runner I provide braces *a*, bolted at one end to the runners and at the other end having an eye through which the rod Q, passes. Each runner of the rear bob is flexibly connected to the reach by means of a rod T, one end of which is bent at right angles as indicated through a hole in the bracket *d*, the other end being hooked and inserted through a hole in a clevis U, secured to the reach V. The rear end of the reach is connected to the rear bolster *e*, in the usual way. The fore end is provided with jaws *g*, which are connected to a swivel eye *f*, con-

nected to the front bolster *e*. The front bent I, is provided with a circle *h*, on which the front bolster rests in turning.

The king bolt *i*, passes through the bolster and bent in the usual way and also through the strap *j*, which is arranged as shown in Fig. 6. This strap is connected to the rod Q, at the point of attachment of the tongue *k*.

The hammer strap *m*, is provided with a hook at one end and a bolt at the other, so that it may be turned with either end forward to suit the particular style of connection that may be adapted to the kind of double tree being used.

In Fig. 7, is shown in detail the method I prefer of constructing the bolster end and bolster stake. A metal cap *n*, is fitted on the end of the bolster. The stake *o*, is pivoted on the cap *n*, so that it may be turned up or down as may be necessary. The short arm of the stake is provided with a lug *p*, adapted to engage with a projection *q* on the lower side of the cap so as to hold the stake in a vertical position. The outer end of the cap *n*, is shaped as shown to grip any desired link of the chain used in fastening on the load.

From this description it will be seen that I have provided by my invention a very strongly constructed bob-sleigh and have arranged it so that while each runner has a free rocking movement independent of the other runners, the motion of the runners will not impart any backward or forward motion to the bents, and further, that owing to the swiveled connection of the reach to the front bob, the latter may take any angle of twist with the rear bob without in any way straining the reach or other parts.

What I claim as my invention is—

1. A runner A, having a block B, with lips C, formed on its bottom to fit between the sides of the runner A, and secured to the said runner by means of the bolts D, and ferrule E, cheeks F, extending from the block B, and having rounded ends as described, in combination with a plate H, having a projection G, formed on it to fit between the cheeks F, and rest upon the bottom of the rounded recess, a pin or bolt J, fitting a hole made through the cheeks F, and projection G, substantially as and for the purpose specified.

2. A runner A, having raves M, bolted to it and links L, hinged to each rave, in combination with a link N, movably fitted into the guide O, fixed to the bent I, substantially as and for the purpose specified.

3. A bolster end cap made of metal on which the stake is pivoted, the lower side being shaped to engage with the said bolster stake so as to hold it in position for use and the end shaped to form a catch to grip a chain, substantially as and for the purpose specified.

Toronto, June 14, 1893.

JAMES HENRY JACKSON.

In presence of—
G. M. NEFF,
J. EDW. MAYBEE.