(Model.)

G. D. ROWELL.

SLED.

No. 250,978. Patented Dec. 13, 1881.

Fig. 1.

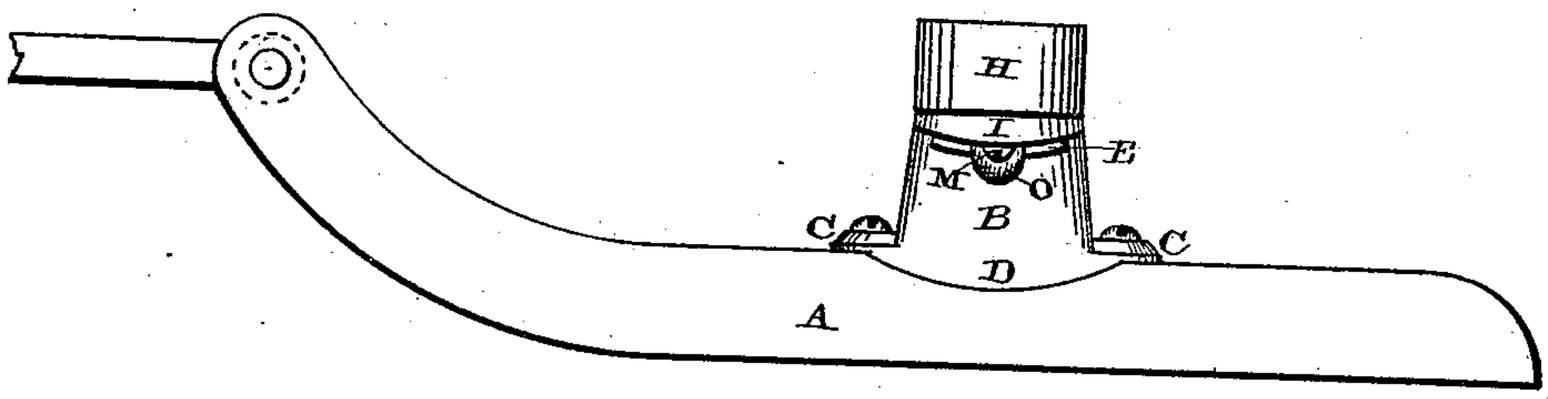


Fig. 2.

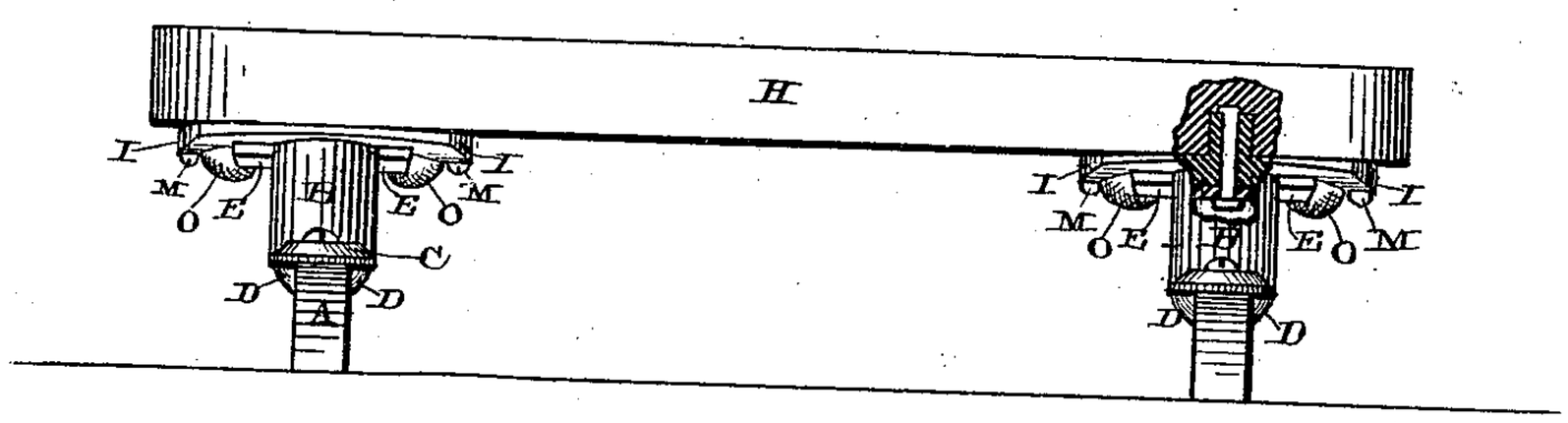


Fig. 3.

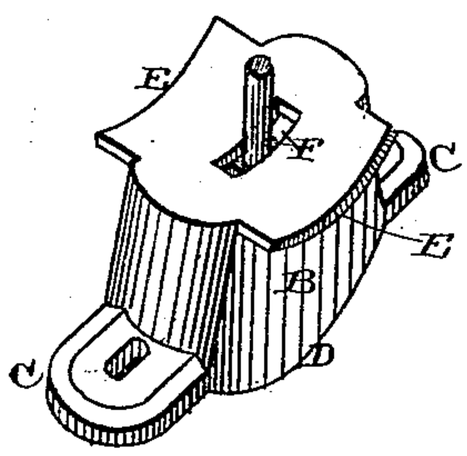
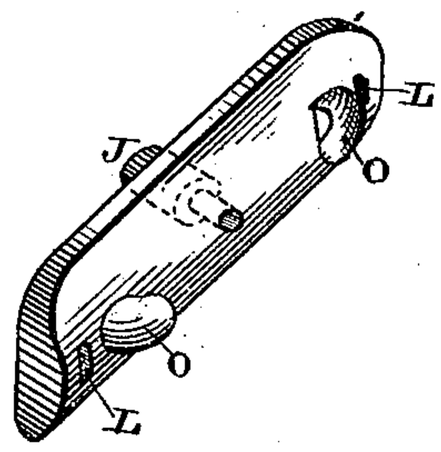


Fig. 4.



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UNITED STATES PATENT OFFICE.

GUILFORD D. ROWELL, OF APPLETON, WISCONSIN, ASSIGNOR TO THE APPLETON MANUFACTURING COMPANY, OF SAME PLACE.

SLED.

SPECIFICATION forming part of Letters Patent No. 250,978, dated December 13, 1881.

Application filed September 29, 1881. (Model.)

To all whom it may concern:

Be it known that I, GUILFORD D. ROWELL, of Appleton, in the county of Outagamie and State of Wisconsin, have invented certain new and useful Improvements in Sleds; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in sleds; and it consists in the combination of the runner, a hollow knee or casting provided with flanges upon its outer and inner edges, and a casting which is secured to the under side of the cross-bar and to the knee by means of lugs which catch over flanges, and by a headed bolt which passes through a slot in the top of the knee, as will be more fully described hereinafter.

The object of my invention is to give a free and independent movement to each one of the runners of a bob-sled, where the sled is to be used upon rough or uncleared ground, and so that in starting heavy loads one of the runners can be started in advance of the other.

Figure 1 is a side elevation of my invention. Fig. 2 is a rear view of the same. Figs. 3 and 4 are perspectives of the two castings.

A represents the two runners, which are loosely connected together at their front ends by the cross-bar to which the tongue is secured. Upon the top of each one of these runners is securely bolted the hollow metallic knee B, which has the flanges C, to fit upon the top of the runner for the bolts to pass through, and the dependent flanges D, which extend down over the sides of the runner, so as to brace the knee securely in place. Upon the inner and outer edges of the top of this knee are formed the flanges E, which are made curved, as shown, and through the top of the knee is made a slot, F, for the headed fastening-bolt G.

Secured to the under side of the cross-piece or bolster H is the casting I, which is provided with the pivot J, which extends up into the under side of the bolster, so as to prevent any endwise movement. Through each end of this casting is made a slot, L, and through this slot is passed a clamping-bolt, M. These slots and the projection, which serves as a pivot also, allow this casting to have a horizontal rotary play at each one of its ends equal to the length of the slots.

The under side of the casting at its center, where it bears upon the top of the knee, is made rounding, so as to correspond to the concavity which is made in the top of the knee, and so that the knee can play freely back and forth a distance which is limited by the length of the slot in the top of the knee. Formed with this casting, on its under side, are the lugs O, which catch over the flanges which are made upon the inner and outer edges of the knee, and thus prevent too great a strain from coming upon the headed bolt, which serves to limit the play which the knee shall have upon the casting. This headed bolt is passed up through the knee from the under side, and its upper end is passed through the pivot upon which the casting turns, and is then clinched or fastened in any suitable manner.

As the casting has a slightly rotary movement upon its pivot, and as the knee can play back and forth over the casting, and as the two runners are closely connected together at their front ends, it will readily be seen that each runner has an almost universal movement, either by itself or in connection with the other one.

By means of this construction, where the slide has to be used upon rough ground, or any ground that has never been cleared of stumps, or where very heavy loads are to be started, the sled is much more easily started and managed than can be done where the two runners are secured rigidly together in the usual manner. Where heavy loads are to be started one runner can be started first, and then the other runner can be readily moved, so that much less exertion is required in starting a sled of this construction than any other kind.

Having thus described my invention, I claim—

1. The combination of the runner, the metallic knee, the casting, and the cross-bar, the knee having a play upon the casting and the

casting having a movement of its own upon the cross-bar, substantially as set forth.

2. The combination of the knee, having the flanges upon its outer and inner edges, with a casting, which is secured to the under side of the cross-bar, and which has lugs to catch over the flanges on the knee, substantially as specified.

3. The combination of the casting, which is secured to the under side of the cross-bar, and which is provided with a projection which forms a pivot for it to turn upon, and which casting has slots in its ends for clamping-bolts to pass through, with the knee having slots in its upper end, and a headed bolt which unites the knee and the casting together, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

GUILFORD D. ROWELL.

Witnesses:
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