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J. L. NYLANDER.

ROLLER ATTACHMENT FOR SLEDS.

(Application filed Aug. 18, 1897.)

(No Model.)

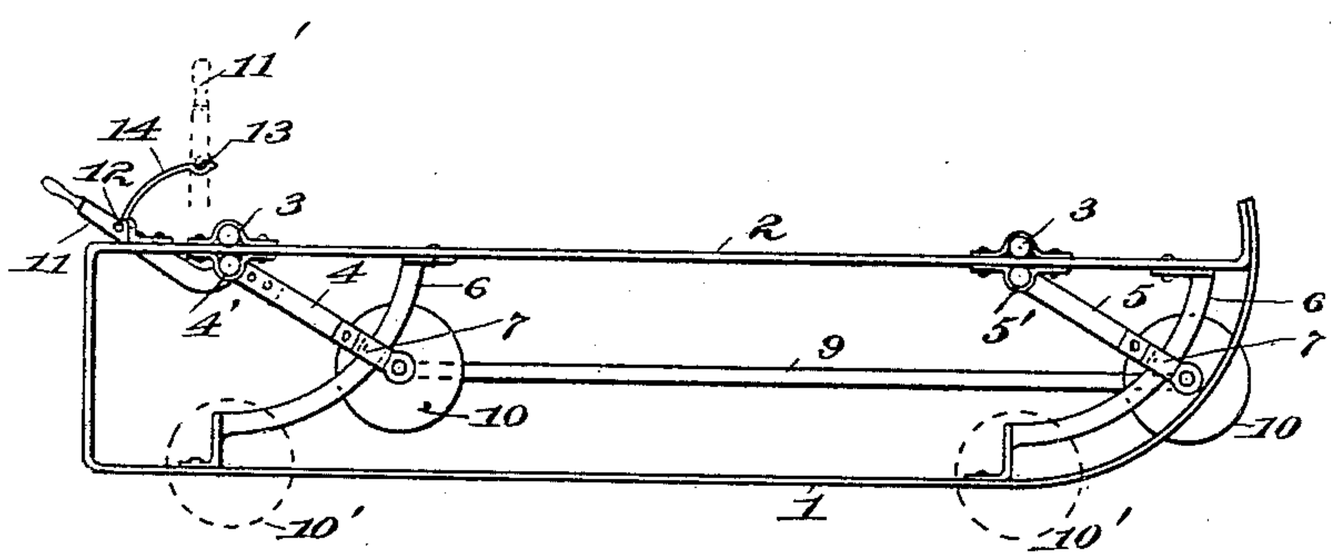

Fig. 1.

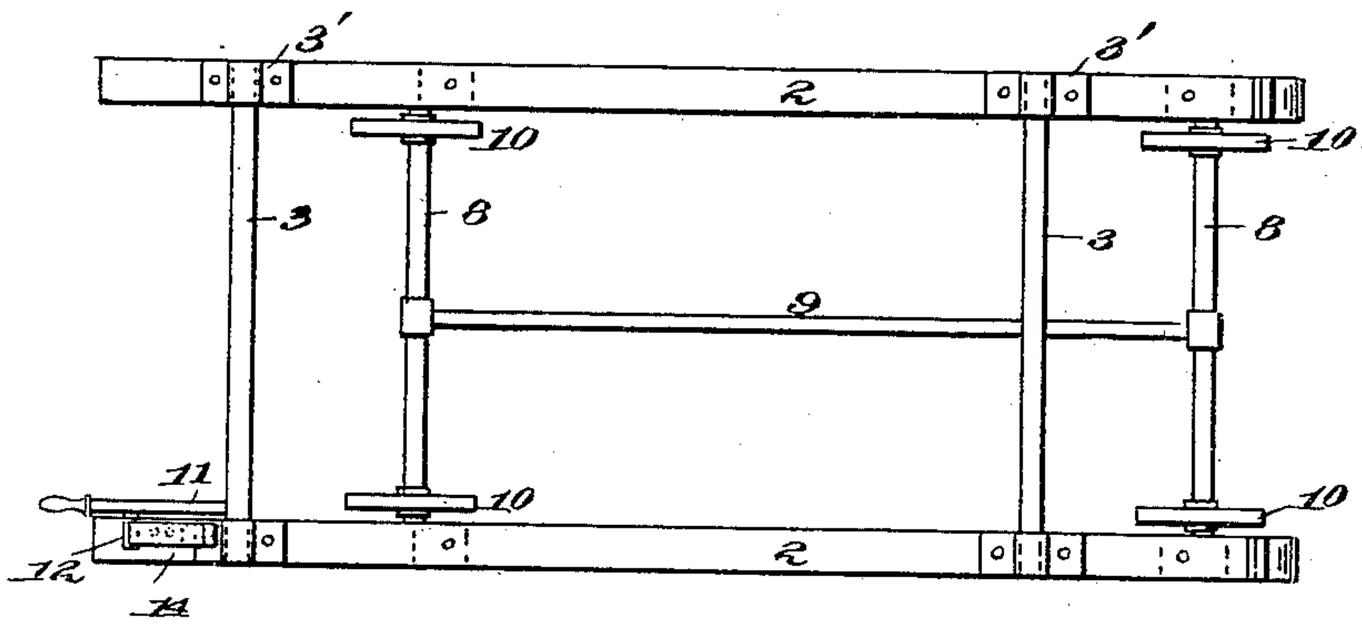

Fig. 2.

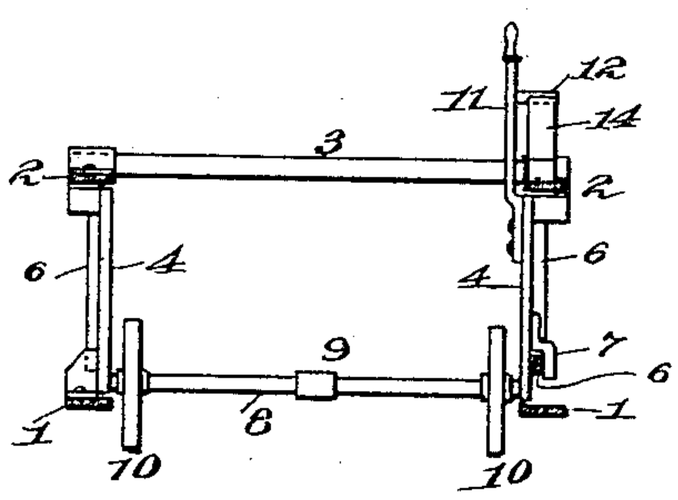

Fig. 3.

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UNITED STATES PATENT OFFICE.

JOSEPH L. NYLANDER, OF DULUTH, MINNESOTA.

ROLLER ATTACHMENT FOR SLEDS.

SPECIFICATION forming part of Letters Patent No. 630,987, dated August 15, 1899.

Application filed August 18, 1897. Serial No. 648,687. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH L. NYLANDER, a citizen of the United States, residing at Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Roller Attachments for Sleds; and I do hereby declare the following to be a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in roller attachments for sleds.

In the northern portions of this country, where for several months of the year the ground is covered with snow, it is the custom to use instead of baby-carriages small sleds having a carriage-body supported thereon.

It is the object of my invention to provide roller attachments for these sleds to enable them to be more easily handled indoors and to travel easily on those portions of the sidewalks or streets from which the snow has been removed. The invention, however, is capable of use with many other kinds of sleds and sleighs with which it may be necessary or desirable to use rollers under special conditions.

The object of the invention is to provide a simple, efficient, and cheap roller attachment for sleds and sleighs, particularly those sleds first referred to.

In order that my invention may be better understood, attention is directed to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a side view of a conventional type of sled, illustrating my improvements applied thereto; Fig. 2, a plan view, and Fig. 3 a vertical sectional view.

In all of the above views corresponding parts are represented by the same numerals of reference.

The sled proper illustrated in the drawings comprises two runners 1 1, bent, as shown, in a generally open framework and formed with a top portion 2. The said runners are connected rigidly together by cross-bars 3 3, fastened at their ends to the tops 2 by means of clips 3′, which are riveted to said tops. The said bars 3 in this type of sled support the springs of an ordinary carriage-body, such as is found in perambulators.

4 4 and 5 5 are two pairs of arms pivoted to clips 4′ and 5′, respectively, beneath the tops 2 2 and near the front and back of the sled. The lower ends of these swinging arms cooperate with curved guides 6, which connect the tops 2 with the runners 1 and which also serve as braces for the sled. The said swinging arms are provided with clips 7, which are passed around or over the guides 6, as will be understood.

Mounted at the lower end of each pair of arms 4 4 and 5 5 is an axle 8, which preferably is fixed in each pair of arms, and the two axles referred to are connected together by a link or connecting-arm 9, so that the two pairs of arms will swing simultaneously. The said axles 8 carry rollers 10 10, which turn freely thereon and which are normally elevated above the line of the runners 1, as shown in Fig. 1. It is of course obvious that the rollers 10 may be fastened to the axles 8 and that the latter may be mounted in bearing-boxes in the lower end of the swinging arms, but the construction above described is preferable.

In order to operate the swinging arms to bring the rollers into and out of engagement with the ground, any suitable mechanism for the purpose may be employed, but that shown is considered desirable. It comprises a hand-lever 11, which is connected to one of the swinging arms 4 at the back of the sled and which is provided with a pin 12 thereon, engaging with a recess 13, cut or formed at the end of the cam-shaped spring 14, when the hand-lever 11 is moved to a vertical position to engage the rollers 10 with the ground. When the said rollers are elevated from the ground, the pin 12 engages slightly behind the end of the spring 14, so as to frictionally lock in that position.

While the improvements which I have described are especially applicable for the purpose mentioned, it is obvious that they may be employed with other varieties of sleds and

sleighs with which their use under some conditions might be desirable.

Having now described my invention, what I claim as new therein, and desire to secure by Letters Patent, is as follows:

1. The combination with a sled or sleigh, the swinging arms 4, 4, and 5, 5, the guides 6, 6, the axles 8, 8, and the rollers 10, 10, substantially as set forth.

2. The combination with the sled or sleigh, of the swinging arms 4, 4, and 5, 5, the guides 6, 6, the axles 8, 8, the connecting-rod 9, the rollers 10, 10, and the hand-lever 11 connected to one of said swinging arms, substantially as set forth.

3. The combination with the sled or sleigh, of the swinging arms 4, 4, and 5, 5, the guides 6, 6, the axles 8, 8, the connecting-rod 9, the rollers 10, 10, the hand-lever 11 connected to one of said swinging arms, and the locking-spring 14 with which said hand-lever coöperates, substantially as set forth.

4. The combination with the sled or sleigh, of the runners 1, and the tops 2, the curved guides 6, connecting the tops with the runners, the arms 4, 4, 5, 5, pivoted on the tops 2, the clips 7 engaging with the guides 6, and the rollers 10, 10 at the lower extremities of said arms, substantially as described.

5. The combination with the sled or sleigh, of the runners 1, 1, the tops 2, 2, the curved guides 6, 6, connecting the tops with the runners, the connecting-bars 3, 3, mounted within clips 3′, 3′, the swinging arms 4, 4, 5, 5, mounted in clips 4′, 4′, 5′, 5′, the clips 7 near the extremities of the arms 4, 4, 5, 5, and engaging with the guides 6, 6, and the rollers 10, 10, mounted upon the extremities of the arms 4, 4, 5, 5, substantially as described.

6. The combination with the sled or sleigh, of the swinging arms 4, 4, 5, 5, with guides 6, 6, the axles 8, 8, the connecting-rod 9, the rollers 10, 10, the hand-lever 11, connected to one of said swinging arms and carrying a pin 12 thereon, the curved locking-spring 14 having a notch or recess 13 therein within which said pin engages, substantially as described.

This specification signed and witnessed this 15th day of July, 1897.

JOSEPH L. NYLANDER.

Witnesses:

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