J. T. RANNEY.

ROAD RUTTER.

APPLICATION FILED MAR. 7, 1911.

1,016,775.

Patented Feb. 6, 1912.

2 SHEETS—SHEET 1.

Fig. 1.

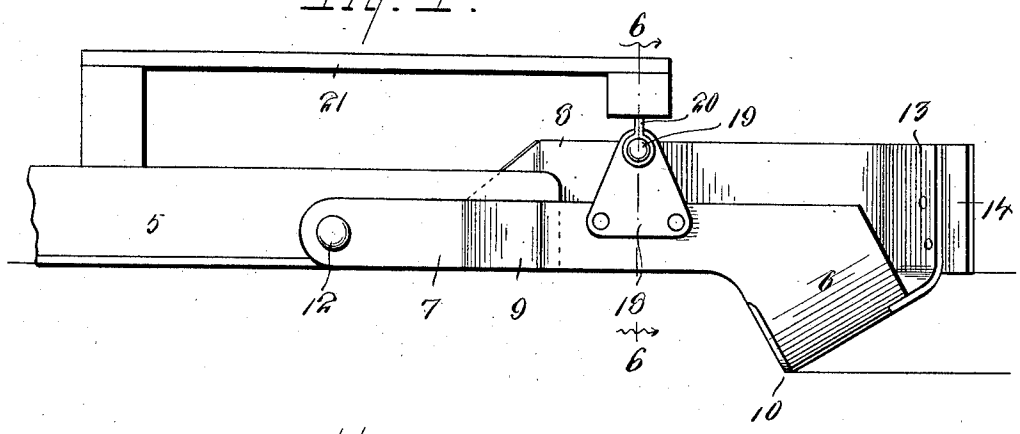


Fig. 2.

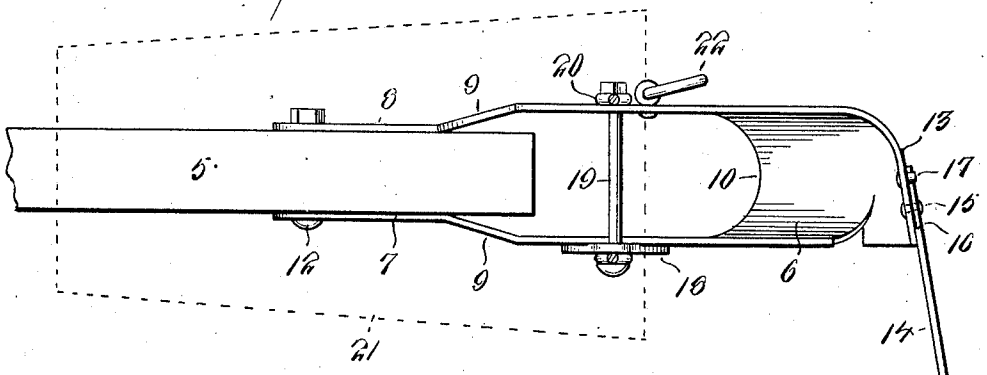
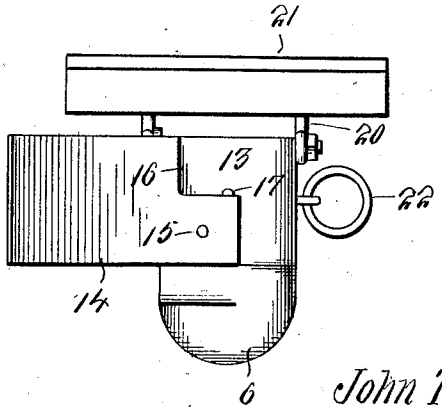


Fig. 3.



Witnesses

E. R. Ruppert.

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2 SHEETS—SHEET 2.

Fig. 4.

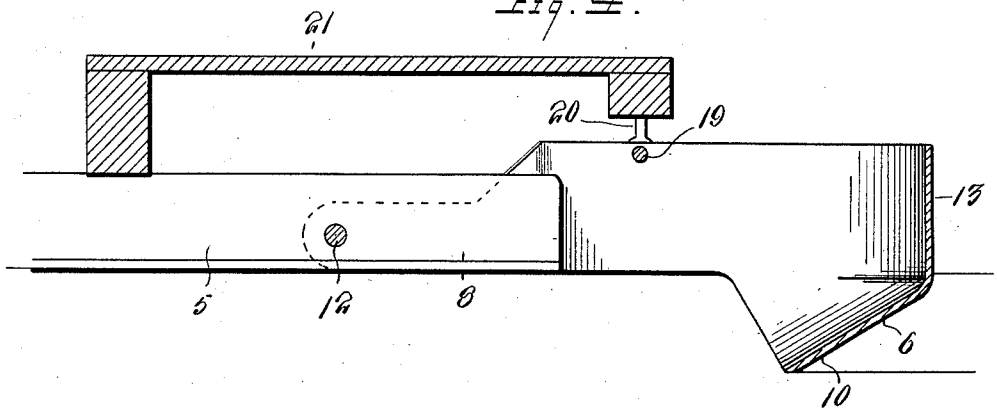


Fig. 5.

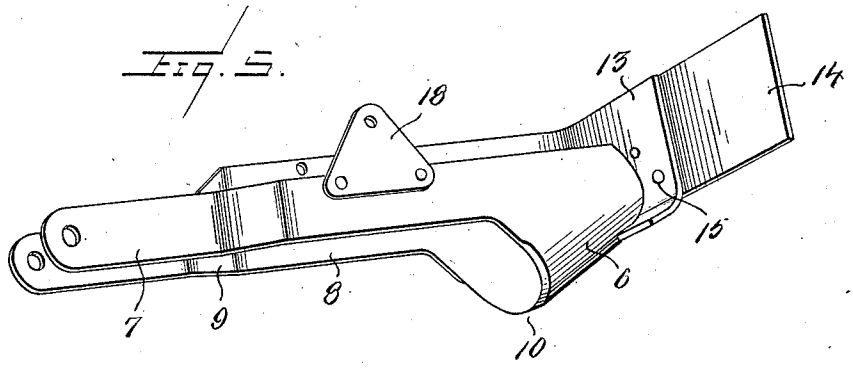
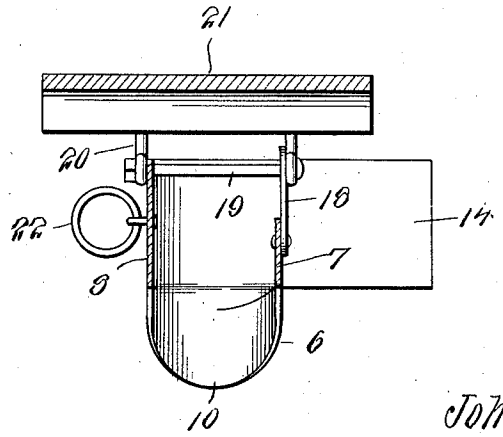


Fig. 6.



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UNITED STATES PATENT OFFICE.

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ROAD-RUTTER.

1,016,775. Specification of Letters Patent. Patented Feb. 6, 1912.

Application filed March 7, 1911. Serial No. 612,781.

To all whom it may concern:

Be it known that I, JOHN T. RANNEY, a citizen of the United States, residing at Fort Kent, in the county of Aroostook and State of Maine, have invented new and useful Improvements in Road-Rutters, of which the following is a specification.

The invention relates to road rutters, and more particularly to the class of attachments for sleighs known as logging sleds.

It is well known that considerable difficulty is experienced in guiding loaded logging sleighs over steep ice-covered roads, and roads covered with relatively hard snow, the tendency of the sleigh being to slide sidewise when ascending or descending a steep incline in the road bed. It has been found that when parallel gutters or grooves spaced apart for a distance corresponding to the distance between the sleigh runners are formed in ice-covered roads, the liability of the sleighs to skid and turn is reduced to a minimum.

Therefore, the primary object of the present invention is to provide a device for attachment to the rear ends of the runners of an ordinary sleigh, so that when the latter is drawn over an icy road or one covered with hard snow, gutters or furrows will be formed in the ice or snow, thus providing tracks or gulleys to receive the runners of subsequent passing sleighs, and in this manner, the same will be prevented from skidding or being moved laterally from its line of draft during the travel thereof.

Another object of the invention is the provision of an attachment of this character in which the snow or ice removed from the ground during the advancement of the sleigh, while in the act of forming the furrows or tracks, will be directed laterally and thrown medially between the furrows or tracks the required distance, so that it will be impossible for the loosened snow or ice to again fall within the furrows or tracks and thereby fill the same.

A further object of the invention is the provision of a rutter or attachment of this character in which the deflector for laterally throwing the snow or ice removed from the furrow or track is mounted for automatic adjustment, so that when the deflector strikes an obstruction or the like, it will freely pass thereover, without impeding the travel of the sleigh.

A still further object of the invention is the provision of an attachment of this character in which the gutter forming element is pivotally connected with the sleigh runner, so that the same may be forced deep into the snow, according to the required depth of the gutter or furrow to be opened thereby, as the sleigh is advanced.

With these and other objects in view, the invention consists in the construction, combination and arrangement of parts, as will be hereinafter more fully described, illustrated in the accompanying drawings, and pointed out in the claims hereunto appended.

In the drawings: Figure 1 is a side elevation of the rear end portion of a sleigh runner, showing my improved device applied thereto. Fig. 2 is a top plan view of the same. Fig. 3 is a rear elevation. Fig. 4 is a vertical longitudinal sectional view. Fig. 5 is a perspective view of the attachment, looking toward the bottom thereof, the same being removed from the sleigh runner. Fig. 6 is a sectional view on the line 6—6 of Fig. 1.

Similar reference characters indicate corresponding parts throughout the several views of the drawings.

The rutter attachment about to be hereinafter described is intended to be applied to the rear end of each runner of a sleigh.

With reference to the accompanying drawings by numerals, 5 designates the rear end portion of one of the runners of a sleigh, to which the attachment is to be applied when in use. A single runner is shown, and likewise the attachment to merely illustrate the manner of mounting and the operation of the latter, but of course, it is to be understood that a complementary attachment is to be applied to the other runner of the sleigh, so that a pair thereof will work in unison, for a purpose as will be hereinafter more fully described.

Each attachment comprises a substantially U-shaped scraping member 6 having spaced parallel limbs 7 and 8, the free ends of which are offset, as at 9, inwardly with respect to the said limbs. The limb 7 is of slightly less depth than a greater portion of the limb 8, which is disposed at the outer side of the runner 5, while the limb 7 is adapted to be disposed at the inner side of the runner 5. The U-shaped scraping member 6, at its closed rearmost end con-

necting the limbs 7 and 8, is formed with a downwardly bowed forwardly inclined medial cutting portion 10 provided with a beveled lower cutting edge, the cutting portion 10 being adapted to cut into ice or snow covering the ground, so as to form a furrow, groove or track therein in a manner as will be hereinafter more fully described.

Passed through the inset ends of the limbs 7 and 8 is a pivot pin 12, the latter being also passed transversely through the runner 5, near its rear end, thereby pivotally connecting the scraping member 6 to the runner. Formed on the member 8, rearwardly of the cutting portion 10 of the scraping member 6, is a laterally inturned wing 13, to the outer face of which is pivotally connected a vertically swinging deflector plate 14, the same being connected by means of the pivot 15 to said wing, and it is cut away at one corner to form a notch 16, into which projects a stop pin or lug 17, the latter being adapted to limit the vertical swinging movement of the plate. It will be noted that this deflector plate 14 may swing vertically to allow the same to pass over stones or any obstructions in the ground. However, the deflector plate, when lowered, will serve to deflect the loosened snow scraped up by the cutting portion 10 of the scraping member 6 inwardly to one side of the furrow when formed in the snow or ice covered road.

Secured to the limb 7, medially of its length, is a vertical ear or bearing 18, the same rising in alinement with the upper edge of the limb 8, and in a suitable opening formed in this bearing 18 and the limb 8 is passed a pivot pin 19, the same being also loosely engaged in eye bolts 20 secured in and depending from a platform or foot board 21, the latter being designed to overlie the rear end of the runner 5, and when desired, an operator may stand upon the platform or foot board 21, so that the weight of said operator thereon will force downwardly the scraping member 6, causing it to cut deep into the snow or ice covered road, whereby said scraping member will open a furrow or groove in the snow or ice, so that the runners of sleighs may travel therein after the furrows or grooves have been cut in the ice or snow covered road. In this manner the runners of subsequent passing sleighs when traveling in the furrows will prevent such sleighs from skidding or turning laterally from its line of draft. Suitably connected to the limb 8 to lie outside of the same, is a ring 22, to which may be connected a chain or other holding medium for sustaining the scraping member 6 in raised position while not in use.

From the foregoing, it is evident that the device herein described is comparatively simple in construction, and inexpensive to manufacture, as it embodies few parts which are so arranged that the danger of derangement will be reduced to a minimum.

What is claimed is:

1. A rutter attachment for sleigh runners, comprising a substantially U-shaped scraping member having a forwardly inclined downwardly bowed medial portion provided with a lower cutting edge, a curved inturned wing formed on the member rearwardly of the said downwardly curved medial portion thereof, and a deflector plate pivoted to said wing.

2. A rutter attachment for sleigh runners, comprising a substantially U-shaped scraping member having a forwardly inclined downwardly bowed medial portion provided with a lower cutting edge, a curved inturned wing formed on the member rearwardly of the said downwardly curved medial portion thereof, a deflector plate pivoted to said wing, and means on the wing and engageable with the deflector plate to limit its swinging movement in reverse directions.

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

JOHN T. RANNEY.

Witnesses:
ALBERTA FORDNEY,
A. G. FENLASON.