H. A. DENNEY.
SLED BRAKE.

APPLICATION FILED JULY 15, 1909. Patented Jan. 25, 1910. 947,676. Harrison A. Denney.

Say Victor J. Evans Witnesses

## UNITED STATES PATENT OFFICE.

## HARRISON A. DENNEY, OF REARDAN, WASHINGTON.

## SLED-BRAKE.

947,676.

Specification of Letters Patent. Patented Jan. 25, 1910.

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To all whom it may concern:

Be it known that I, Harrison A. Denney, a citizen of the United States, residing at Reardan, in the county of Lincoln and State of Washington, have invented new and useful Improvements in Sled-Brakes, of which the following is a specification.

This invention relates to an improvement in brakes for sleds, and the object of the invention is to provide a brake of a peculiar construction which will readily and quickly cut through the crust of ice or snow when thrown into operation to halt the motion of the sled.

With the above and other objects in view, which will appear as the description progresses the invention resides in the novel construction and arrangement of parts hereinafter fully described and claimed.

In the accompanying drawing there has been illustrated a simple and preferred embodiment of the invention and in which,

Figure 1 is a top plan view of a bob sled provided with an improved brake. Fig. 2 is a longitudinal sectional view upon the line 2—2 of Fig. 1. Fig. 3 is a detail sectional view taken upon the line 3—3 of Fig. 1 and looking in the direction of the arrows.

In the accompanying drawing the nu-30 meral 1 designates a bob sled of the ordinary construction comprising a pair of runners 2 suitably spaced apart through the medium of spacing beams 3 and 4. Secured to the runners 2 adjacent the rear connecting beam 35 4 is a pair of upwardly extending brackets 5 one being connected with each of the said runners 2. These brackets 5 are provided with alining openings which are adapted for the reception of a transversely extending 40 shaft 6 having one of its ends offset to provide an operating handle 7. The shaft 6 has its ends rounded so that the same may be firmly rotated within the openings provided by the members 5. The body of the shaft, 45 however, is of a non circular cross sectional shape and is adapted for the reception of suitable offset arms or arbors 8. The arbors 8 are arranged in pairs and are pivotally

connected with the brake wheels 9. These brake wheels 9 are of a peculiar construction being preferably made from a single blank

of metal which is slit at spaced intervals from its periphery toward its center at different angles and the portions provided by these slits are bent in opposite directions so 55 as to provide a broadened as well as a sharpened bearing surface. The central portion of each of the wheels 9 has a suitable hub 10 whereby the axle 11 secures the wheel of the members 8. This axle 11 has one of its ends 60 enlarged and adapted to bear tightly against one of the longitudinally extending reduced portions of the member, while the said axle is adapted to extend a suitable distance beyond the opposite arm of the said 65 member 8. This extending portion of the axle is adapted to be pivotally connected as at 12 with a pair of spaced plates 13. The plates 13 are connected together adjacent their outer extremity through the medium 70 of a suitable pintle 14 and adapted to engage the said pintle between the plates 13 is an eye or loop 15 or a forwardly projecting bar 16. This bar 16 is pivotally connected as at 17 to the inner face of the runner 2. 75 In operation, when desired, to halt the sled, the offset handle 7 of the shaft 8 is swung toward the front of the sled 1, thus causing the oppositely disposed ears of the wheel 9 to be brought below the level of the runners 80 2 and into contact with the snow or ice over which the sled is traveling. It will be noted that by providing the wheels 9 with the offset, substantially sharpened ears, the latter will penetrate the crust of snow or ice and 85 effectively halt the sled.

From the above description, taken in connection with the accompanying drawing, it will be noted that I have provided a comparatively simple and thoroughly effective 90 device for the purpose intended, and it is to be understood that while I have illustrated and described the preferred embodiment of the invention as it now appears to me, minor details of construction within the 95 scope of the following claim may be resorted to if desired.

Having thus fully described the invention what is claimed as new is:

The combination with a sled, and a brake 100 therefor, said brake comprising a wheel having its periphery provided with oppositely

disposed ears, a shaft for the wheel, a pair of plates pivotally connected with the shaft, said plates having their outer extremities pivotally connected together, a bar provided with an eye engaging the pivot of the plates and having a pivotal connection with the runner, an offset bracket secured to the axle of the wheel, and a shaft mounted upon the

sled, and secured to the arms of the bracket, substantially as described.

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

HARRISON A. DENNEY.

Witnesses:

CHAS. W. WOODWARD, J. A. HANSEN. 10