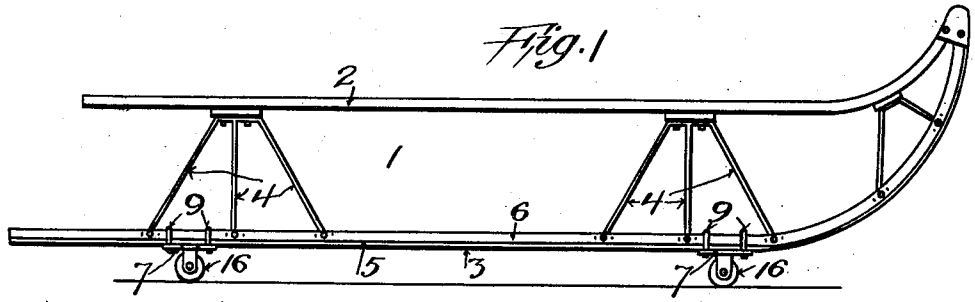
L. LEICHT.

ATTACHMENT FOR SLEDS.

APPLICATION FILED APR. 23, 1918.

1,304,331. Patented May 20, 1919.

Fig. 1



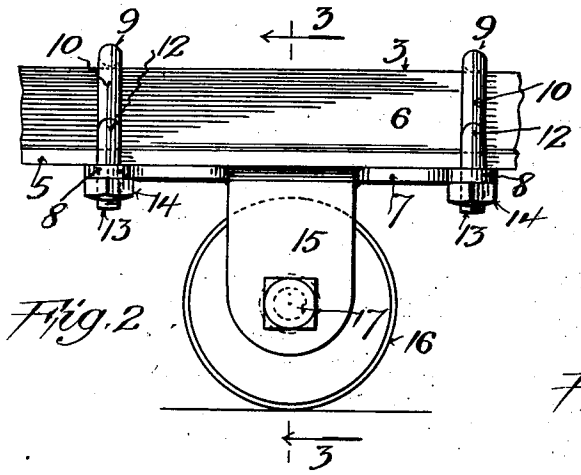


Fig. 2

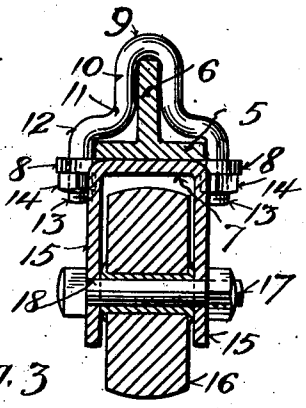


Fig. 3

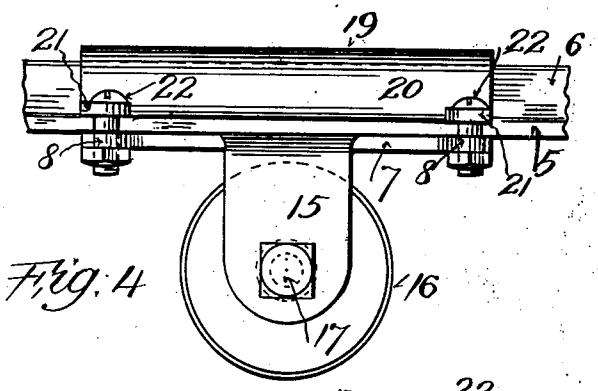


Fig. 4

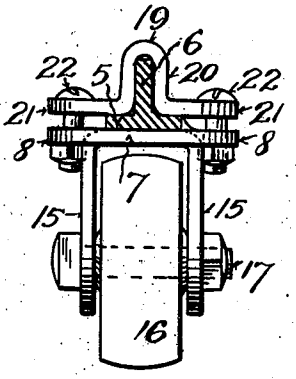


Fig. 5

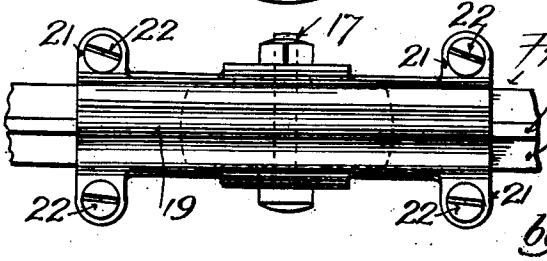


Fig. 6

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ATTACHMENT FOR SLEDS.

1,304,331. Specification of Letters Patent. Patented May 20, 1919.

Application filed April 23, 1918. Serial No. 230,222.

To all whom it may concern:

Be it known that I, LOUIS LEICHT, a citizen of the United States, and a resident of Yonkers, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Attachments for Sleds, of which the following is a specification.

My invention relates to simple, and inexpensive attachments by which the ordinary children's sled may be converted for use in summer. My device may be attached to any of the popular styles of sleds by any person without special tools, so that the sled, which ordinarily is adapted for use only in the winter, may be used as a coaster in other seasons of the year. My object is not to require the special construction of the sled to adapt it for all seasons but to conveniently convert those which have been in use as well as such as may be purchased from time to time. By attaching a set of wheels or rollers to the sled the latter may be used in summer for coasting in very much the same way that the sled is used in winter, the difference being that in one case the sled slides on the runners over the snow or ice, whereas, in the other case it runs on the wheels or rollers. By providing very inexpensive devices for converting the ordinary sled the latter is adapted for all year use and at a cost but slightly above the usual cost of the ice sled alone.

The present device is simple, strong and compact and it is adapted to be applied to the usual runners of the sled.

In the drawing forming part of this application.

Figure 1— is a side elevation of an ordinary sled with my attachments applied thereto.

Fig. 2— is an enlarged elevation of part of the runner and one of the attachments.

Fig. 3— is a sectional view taken on the line 3—3 of Fig. 2.

Fig. 4— is a view corresponding to Fig. 2, but showing a modified form of my invention.

Fig. 5— is an end view of the parts shown in Fig. 4, and

Fig. 6— is a plan view thereof.

I will first describe the form of my invention shown in Figs. 1, 2 and 3. Herein I have shown an ordinary sled 1 consisting of the body or top 2, the runner 3 and the supports or struts 4, through which latter the top is supported from the runners. It will be understood that the sled is constructed at both sides alike, only one side being shown herein for simplicity. In the more popular sleds now on the market the runners are made of angle metal of T shape in cross section and I have shown this form of runner in the present case. The runner 3 as will be seen more clearly in Fig. 3 is T shape in cross section the bottom or horizontal web 5 constituting the part which actually rests and slides upon the ice or snow, and the vertical web 6 constituting a strengthening or stiffening member and to which latter the vertical supports 4 are attached. The attachments forming the subject matter of my invention are preferably made in separate units to be attached at the forward and rearward part of each runner, each carrying at least one wheel or roller. The attachments may all be made alike so that a description of one will answer for all. Each consists of a plate 7 adapted to lie flat against the under surface of the runner web 5 and the plate 7 is preferably about the same width as the runner and of sufficient length to give a firm bearing surface, but it need not be as long as the runner itself. This plate 7 has laterally extending ears 8 projecting from opposite sides and at each end and they are provided with bolt holes lying just beyond the lateral edges of the runner web 5.

There is a clamp 9 at each end of the plate 7, consisting of a rod having a U shaped top 10 adapted to fit over and to lie close to the vertical web 6 of the runner, and the rod is bent outwardly at 11 at each side of the vertical web 6 and thence downwardly at 12, terminating in the parallel, threaded ends 13. The clamp 9 conforms substantially with the contour of the runner, so that when tightened against it, the clamp can not move in any direction on the runners. The threaded ends 13 of the clamps are passed through the apertures in the ears 8, at opposite sides of the runner and nuts 14 are screwed onto these threaded ends. When these nuts are screwed tight, the clamp 9 and plate 7 are held firmly against the runner and the plate 7 can not move laterally nor lengthwise of the runner, nor can it tilt.

The plate 7 has downturned forks 15, spaced apart to receive between them the

wheel or roller 16. There is an axle 17 passing through apertures 18 in the forks 15 and on which the wheel or roller turns. Ordinary skate rollers may be used for the purpose. If these attachments are placed at the forward and rear parts of each runner the sled will have a four point support and this will generally be sufficient, though a lesser or greater number may be used. As the wheels or rollers are in line with the runners, vertically, the weight of the sled and the rider is supported in substantially the same manner through the structure as when traveling on the runners direct. The whole structure of the sled is utilized when the present device is employed, so that expensive and cumbersome frame structure need not be added to the sled to convert it to a wheeled or roller vehicle. With the device shown herein it is not necessary to raise the sled much above its previous height.

In the form shown in Figs. 4, 5 and 6, the plate 7 and all the parts directly connected therewith are the same as in the previously described construction and these parts have the same positions relatively to the runner as in the said first construction. Instead of the bent wire clamps, however, I have shown a plate 19 extending the length of the plate 7 and having a loop shaped portion 20 fitting over the vertical web 6 of the runner. The plate 19 has lateral ears 21 corresponding with the ears 8 on the lower plate 7, and they have apertures registering with the apertures in the latter. In attaching this device to the runner the plate 7 is applied against the under face of the runner and the plate 19 is applied over the vertical web 6. Bolts 22 are then passed through the ears 21 and 8 and when tightened they hold the upper and lower plates clamped tightly against the runner.

Having described my invention, what I claim is:

A device of the class described comprising a plate adapted to be secured to the under side of a sled runner of T cross section, and provided with apertured extensions projecting laterally beyond the runner, forks depending from said plate and a wheel or roller revolubly mounted between said forks, a clamp provided with a top loop engaging over the vertical web of the runner and extending downwardly at each side of and against said vertical web and thence outwardly and means for attaching said clamp to the lateral extensions of said plate.

Signed at Yonkers, in the county of Westchester and State of New York, this 22nd day of April, 1918.

LOUIS LEICHT.