

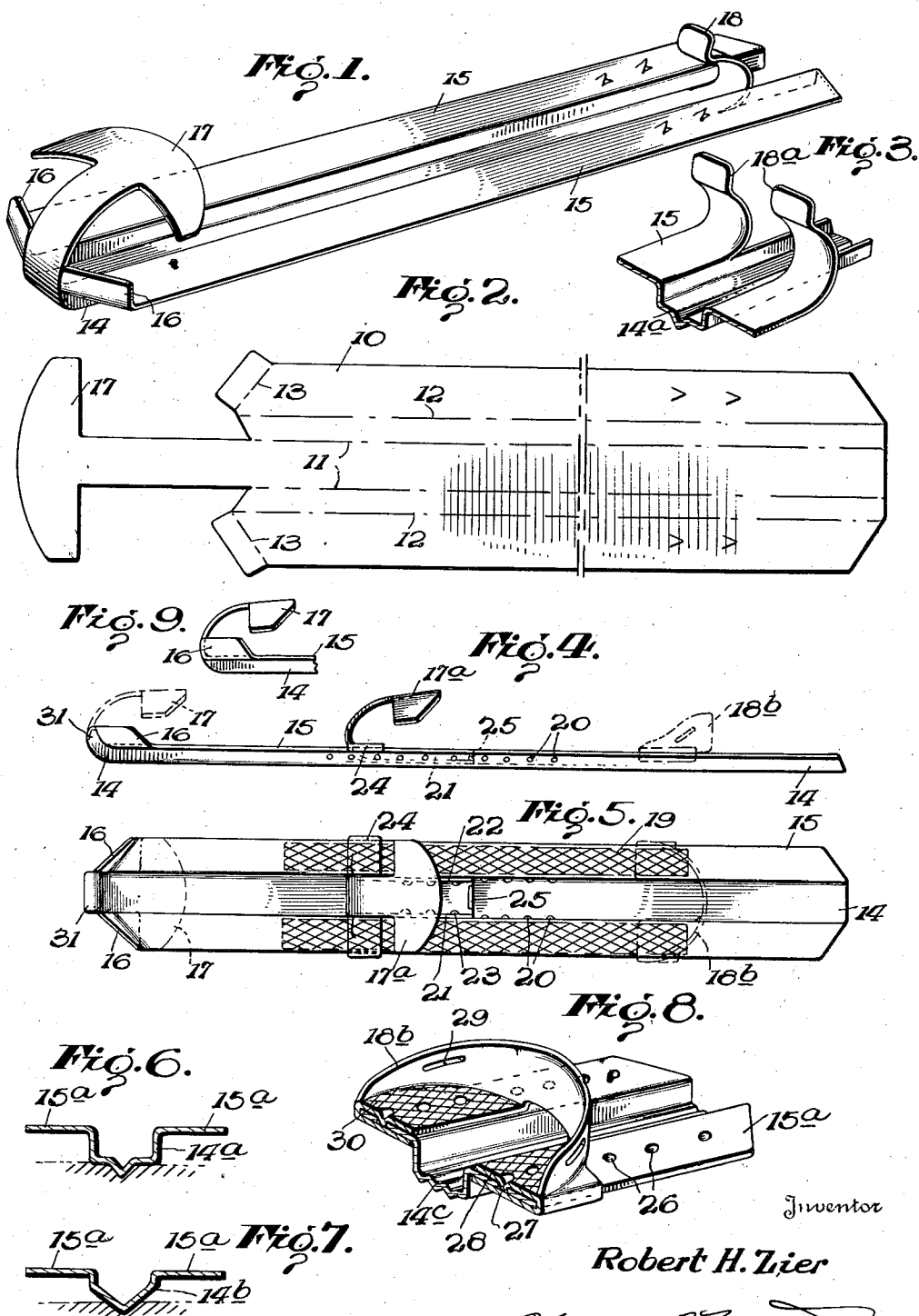
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COASTING SKATE

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COASTING SKATE

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My invention relates to coasting devices which may be termed coasting, snow, or ski skates. One object is to so form coasting devices from blanks of sheet metal as to provide both a runner and a foot clamp or keeper, from the same blank. It is also of my invention to so form the bottom of the runners that the same set of skates may be used on ice, packed snow or soft snow, with equal facility. Another object is to so form the foot clamps or keepers that skates may be both readily put on and taken off, and may be used without straps, or clamps operated by key or lever or otherwise. After the slide is completed the skates because so formed, may be readily kicked off so the return to the top of the slide may be readily and easily made.

It is also of the objects of my invention to provide heel-engaging means, which may be either stationary and struck up from either the bottom of the runners or from the foot plates, or longitudinally adjustable either with or without provision for the use of straps.

Another object of my invention is to provide either or both the tread surface and heel surface of the foot-plate with a non-slipping surface as by milling or die-stamping said surface or surfaces with a suitable design.

A still further object of my invention is to provide in a long form thereof, a toe-clamp adjustable longitudinally of the skate, so that it may be adjusted to perfect balance for various weight of users. It is also within the purview of my invention to provide an adjustable heel-engaging means.

The foregoing objects are obtained in an inexpensive, yet efficient product, by a simple stamping from sheet metal.

With the foregoing, and various other objects and results in view, which objects and results will be readily apparent to those skilled in this art, the invention consists in those certain novel features of construction hereinafter described and claimed, which features are disclosed in the accompanying drawing in which:

Figure 1 is a perspective view of one form of my snow or coaster skate.

Figure 2 is a broken plan view of the skate blank prior to its being struck up into final form.

Figure 3 is a perspective detail showing heel-engaging members struck up from the foot plate.

Figure 4 is a side elevation of a modified form of my snow-skate.

Figure 5 is a plan view of that form of my device shown in Figure 4.

Figures 6 and 7 are cross sections showing modified forms of runner construction.

Figure 8 is a perspective detail showing an adjustable heel-engaging means.

Figure 9 is a side elevation of a modified form of the front end of the modified form of skate shown in Figures 4 and 5.

In these several views of my invention in which the same reference character always identifies the same part, 10 is a plain blank cut or stamped from sheet metal, as indicated in Figure 2. This blank is given a master stamping and bends along lines 11, 12 and 13, as indicated in said Figure 2 by dot and dash lines. This master stamping produces the runner 14, foot plates 15 and shoe-engaging means 16 which are formed along said lines indicated at 11, 12 and 13. The toe-engaging means 17 is then bent into shape and position as shown in Figure 1. When my snow or coaster skate is to be used on level ground, the bearing surface of runner 14 may be flat. Also it may be bent up as indicated at 18 to conform with the usual foot sizes, 6 to 12, of children. It will be noted from the shape of heel-engaging means 18 that the same provides for spring pressed engagement with the heel of the user. When used solely for coasting it is not necessary to provide the heel-engaging means 18. It also comes within the purview of my invention to form heel-engaging means 18a from the foot plates, as indicated in detail drawing, Figure 3.

When my ski or coaster skates are to be used on packed snow or ice I make provision for preventing side slipping by forming the runners with V-shaped bearing surfaces as indicated at 14a, 14b and 14c in Figures 3, 6, 7 and 8.

In that form of my device shown in side elevation in Figure 4 and plan view in Figure 5, which is an elongated form intended primarily for use analogous to that of skis, it will be noted that the foot plate is roughened as indicated at 19, which roughening may be formed at the time of the master stamping or separately as desired. This corrugated foot surface may also be provided in all forms of my coaster skate if desired. In this form of my device, in the side walls of the runner I provide bosses 20. Also in this form of my device the toe engaging means 17a is formed separately and with a prolonged shank 21, which shank 21 is struck up to form side walls 22 which walls have stamped therein recesses 23 which are adapted to engage with the bosses 20. Said toe-engaging means also is provided with wings 24 which are so bent as to ex-

tend across and over the edges of the foot plates in order to prevent spreading of the foot plates which might result in corresponding deformation of the runner. At the rear end of the tongue 21 I provide a lug 25 to expedite adjustment of the toe-engaging means. This may be done by striking against said lug 25 with a screw driver or thin chisel, causing the toe piece to slide to new engagements of the recesses and bosses above referred to. In that form of my coaster or ski skate shown in Figure 8, I provide indentations 26 in the foot plate which are adapted to be engaged by bosses 27 struck up in the heel bearing surface 28 of the modified form of heel-engaging means 18b. Said heel-engaging means is so formed as to slidably engage both the upper and lower surface of the foot plate 15a, and is also provided with slots 29 in which ankle straps may be inserted. The foot bearing surface of said heel engaging means 18b may be roughened as indicated at 30. It will be noted that the construction of heel engaging means 18b is such that it not only slides along from the plate 15a but also ensures against lateral displacement or deformation of the foot plate which would result in corresponding buckling of the runner. In this ski form of my invention it will be noted that at the front end foot plates may be engaged by the bending back of the bottom plate of the runner as indicated at 31 to provide for proper engagement of the skate with the snow, as shown in Figures 4 and 5. However, if it is preferred the front end may be formed as shown in Figure 9. This form will permit use both with and without use of the supplemental toe-engaging means 17a.

From the foregoing it will be seen that my ski or coaster skate is of simple construction which in the form shown in Figure 1 may be cheaply formed by being struck up from a one piece blank of sheet metal which, after the blank is cut to form, necessitates but two operations—that of forming the runner and toe-engaging means from one stamping, and then the bending over of the toe-engaging means. In this form of my coaster skate the user simply slips the shoe under the toe-engaging means and slides. At the end of the slide the skate is kicked off and return is made to the top of the hill for the repetition of the pleasure.

In that form of my skate shown in Figures 4 and 5, it is obvious that a similar mode of operation is carried out. However, where use is made of straps to engage the heel when using that form of heel plate shown in Figure 8, it is obvious that the skates are used as skis and the manner of use will be modified accordingly.

It is obvious that various changes, substitutions and modifications may be resorted to without departing from the spirit and scope of my invention.

What I claim as new and desire to secure by Letters Patent is:

1. As a new article of manufacture a coasting skate integrally formed from a sheet-metal blank and characterized by a channel runner, foot plates extending laterally from the top edges of said

runner, sole stops extending upwardly at the front ends of said foot plates, and a flexible toe-engaging means formed with a central stop member extending upwardly and rearwardly, and wings extending laterally from said member at said rearward portion and adapted to resiliently engage the top and sides of the toe-portion of the skater's shoe.

2. As a new article of manufacture a coasting skate integrally formed from a sheet-metal blank and characterized by a channel runner, foot plates extending laterally from the top edges of said runner, and a flexible toe-engaging means formed with a central toe-stop member extending upwardly from the bottom of said runner-channel, and rearwardly over the front portion of the skate, wings extending laterally from said rearward portion and adapted to resiliently engage the top and sides of the toe-portion of the skater's shoe, said channel runner and foot plates being clear of obstruction rearwardly of the toe-engaging means.

3. As a new article of manufacture a coasting skate integrally formed from a sheet-metal blank and characterized by a channel runner, foot plates extending laterally from the top edges of said runner, sole stops extending upwardly at the front ends of said foot plates, and a flexible toe-engaging means formed with a central toe-stop member extending upwardly from the bottom of said runner-channel, and rearwardly over the front portion of the skate, wings extending laterally from said rearward portion and adapted to resiliently engage the top and sides of the toe-portion of the skater's shoe.

4. As a new article of manufacture a coasting skate integrally formed from a sheet-metal blank and characterized by a channel runner, foot plates extending laterally from the top edges of said runner, sole stops extending upwardly at the front ends of said foot plates, a flexible toe-engaging means formed with a central toe-stop member extending upwardly from the bottom of said runner-channel, and rearwardly over the front portion of the skate, wings extending laterally from said rearward portion and adapted to resiliently engage the toe-portion of the skater's shoe, resilient heel-engaging means struck up from the bottom of the rear portion of the channel runner, and non-slipping means formed on the foot plates.

5. As a new article of manufacture a coasting skate integrally formed from a sheet-metal blank and characterized by a channel runner, foot plates extending laterally from the top edges of said runner, sole stops extending upwardly at the front ends of said foot plates, a flexible toe-engaging means formed with a central toe-stop member extending upwardly from the bottom of said runner-channel, and rearwardly over the front portion of the skate, wings extending laterally from said rearward portion and adapted to resiliently engage the toe-portion of the skater's shoe, resilient heel-engaging means struck up from the bottom of the rear portion of the channel runner.

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