

March 22, 1960

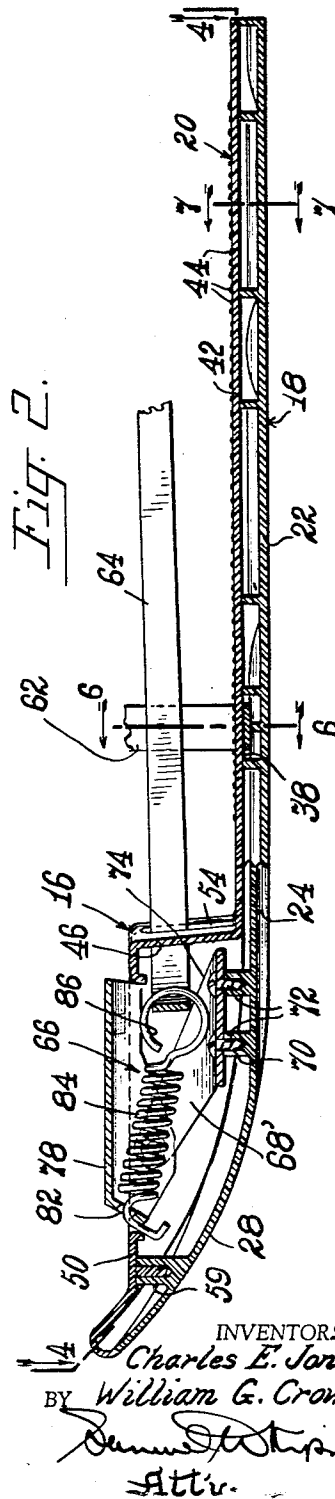
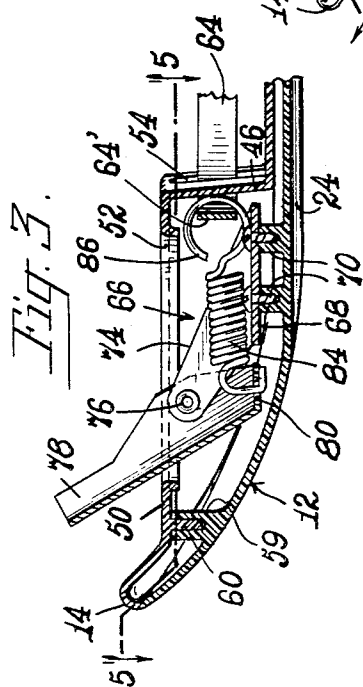
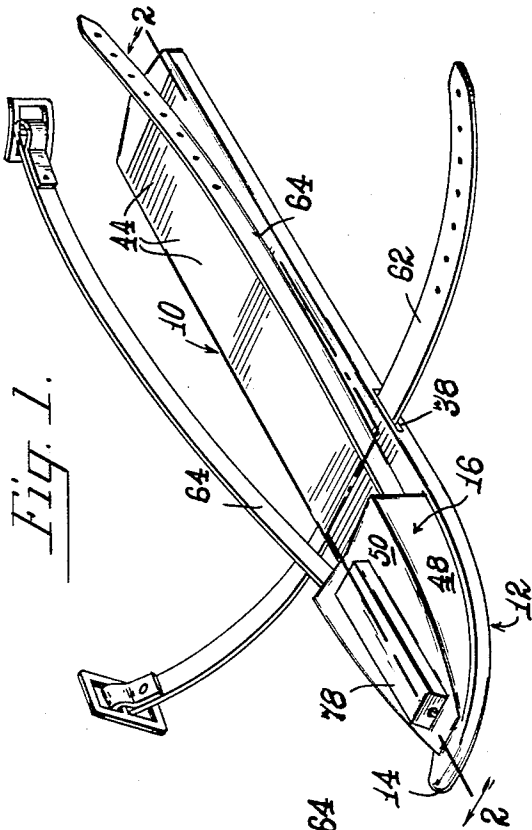
C. E. JONES ET AL

2,929,636

SLIDE SKATE

Filed July 15, 1957

2 Sheets-Sheet 1



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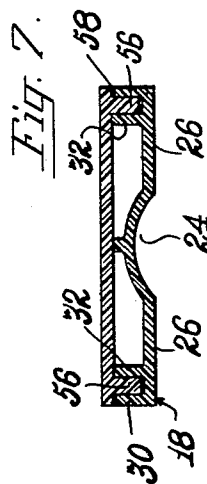
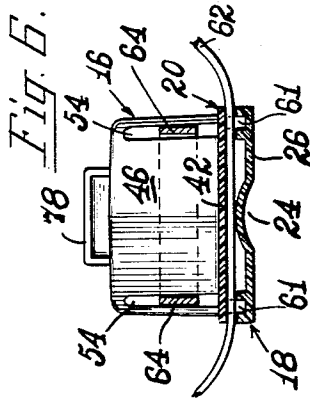
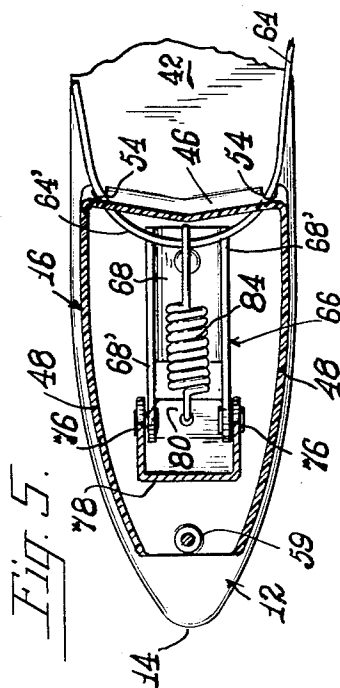
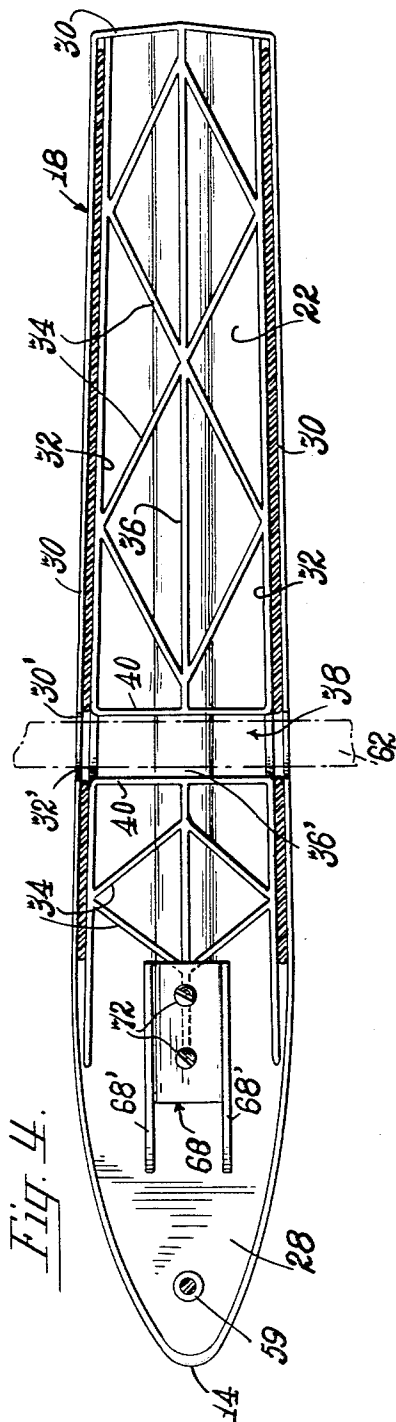
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SLIDE SKATE

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4 Claims. (Cl. 280—11.13)

The invention relates to improvements in slide skates and is particularly concerned with the novel construction and assembly of a slide skate specially designed for use by young children.

The body of the slide skate embodying the features of the present invention is ruggedly constructed from suitable plastic and it is molded in two parts which are joined together firmly into an integral whole. The construction and assembly is such that, although each part is made with relatively thin walls suitably reinforced by webs, said parts interfit in such manner that when joined, as by bonding, to form the body of the slide skate, said body is sufficiently rigid as to resist twisting, warping and breakage. The structure also includes novel means in the form of a simply constructed toggle latch for drawing a heel strap firmly about the heel of the shoe of the wearer.

It is therefore an object of the invention to provide a novelly constructed rugged slide skate of the character described.

Another object is to provide a slide skate with a molded plastic body that is easily fabricated in two matching parts and rigidly joined together inexpensively.

Another object is to provide a slide skate of the character described with a novel strap tightening toggle latch and mounting therefor.

With the foregoing and such other objects in view, which will appear as the description proceeds, the invention consists of certain novel features of construction, arrangement and combination of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in form, proportion, size and minor details of the structure may be made without departing from the spirit of the invention.

Referring to the drawings in which the same characters of reference are employed to identify corresponding parts:

Fig. 1 is a perspective view of a slide skate embodying the features of the present invention.

Fig. 2 is a longitudinal vertical sectional view, taken substantially on line 2—2 of Fig. 1.

Fig. 3 is a fragmentary vertical longitudinal sectional view of the toe portion of the slide skate, showing the toggle latch in released position.

Fig. 4 is a horizontal sectional view taken substantially on line 4—4 of Fig. 2.

Fig. 5 is a horizontal sectional view taken substantially on line 5—5 of Fig. 3.

Fig. 6 is a vertical transverse sectional view taken on line 6—6 of Fig. 2.

Fig. 7 is an enlarged transverse sectional view taken on line 7—7 of Fig. 2.

Referring to the accompanying drawings, the slide skate body comprises an elongated flat foot portion 10 terminating at its front end in an upwardly curved toe portion 12 having a rounded or snub nose 14 and a latch housing 16 on its top surface. The slide skate

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body is fabricated from two sections, one of which comprises a bottom 18 and the other a top 20, which are bonded together to form a rugged unitary structure.

The bottom 18 is molded in one piece from suitable plastic material and it includes a thin elongated narrow bottom wall 22 having a longitudinally extending inverted substantially semi-circular channel 24 on its longitudinal center which is substantially coextensive with its length. This channel provides, in effect, a pair of laterally spaced runner surfaces 26 (Figs. 6—7) which merge into the upwardly curved front end portion 28 of the bottom wall 22 and also functions to reinforce said bottom wall.

Additional reinforcement for the thin bottom wall is provided in the form of an upstanding perimeter wall 30 (Fig. 4) inwardly spaced longitudinal upstanding flanges 32, which are coextensive with the longitudinal portions of the perimeter wall 30, and by crossed webs 34 and a central longitudinal reinforcing rib 36. The side portions of the perimeter wall 30, as well as the upstanding flanges 32 and rib 36 are provided with transversely aligned gaps 30', 32' and 36', located substantially midway of the length of the bottom 18. These gaps define an upwardly opening transverse channel 38 bordered on its sides by ribs 40 for a purpose to be described presently.

The top 20 is also molded in one piece from suitable plastic and it includes a thin top wall 42 of a size and shape corresponding to the size and shape of the bottom wall 22. The top surface of the elongated flat foot receiving portion of said wall 42 preferably is formed with antislip lateral ribs or serrations 44 and its upwardly curved front end portion has the latch housing 16 formed integral therewith. Said housing comprises a lateral wall or toe plate 46, which is slightly V-shaped in horizontal section, longitudinally converging side walls 48 and a top wall 50. A substantially rectangular longitudinally extending slot 52 is provided in the top wall 50 and a pair of spaced vertical slots 54 are formed in the lateral wall 46.

The bottom face of the top wall 42 has a pair of integral downwardly extending ribs 56 substantially coextensive with its length and each spaced inwardly from the respective longitudinal edge a distance sufficiently to permit said ribs 56 to seat into the spaces between the related portions of the perimeter wall 30 and the flanges 32 on the bottom 18 when the two parts are assembled, as is best shown in Fig. 7. A suitable bond 58 (Fig. 7) is applied to the opposed surfaces of the top 20 and bottom 18 when assembled so as to provide a very rigid assembly. Added reinforcement is provided in the toe portion of the slide skate by the presence of a tubular boss 59 on the inside face of the bottom wall which receives snugly an aligning pin 60 integral with the bottom face of the top wall.

The ribs 56 are provided with laterally aligned gaps 61 (Fig. 6) which register with the transverse channel 38 in the bottom so as to maintain an uninterrupted passageway through which a foot attaching toe-strap 62 is threaded.

The slide skate assembly also includes a heel strap 64 which is threaded through the vertical slots 54 in the latch housing 16. As shown, the free ends of the strap extend rearwardly from said housing for securement about the heel of the wearer's shoe and its looped end 64' is disposed wholly within the latch housing 16 and is engaged by a latch assembly, generally indicated at 66, mounted within said housing.

Referring now particularly to Figs. 2, 3 and 5, the latch assembly 66 comprises a U-shaped metal bracket 68 mounted firmly on a pair of upstanding bosses 70 on the inside of the bottom wall 22 as by means of drive

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screws 72. The side walls 68' of said bracket extend upwardly-forwardly to provide inclined upper edges 74, and bearings 76 for pivotally mounting a hand engaging clamp member 78 which is substantially rectangular in shape and of a size to substantially fill the slot 52 in the housing when in the closed or clamped position shown in Fig. 2. This clamp member is formed from metal sheet and it includes an end wall 80 that is suitably apertured as at 82, to receive one end of a coiled spring 84, the other end of which is formed with a relatively large loop 86 through which the heel strap 64 is threaded.

When the latch assembly is in the open position illustrated in Fig. 3, the spring 84 lies entirely below the bearings 76 and is relaxed so that no tension is placed upon the strap 64. When the slide skate is attached to a foot and the strap 64 is engaged around the heel of the wearer, the clamp member 78 is moved from the open position shown in Fig. 3 into the strap tightening position illustrated in Fig. 2. This movement of the member 78 pulls the strap 64 into the housing and the bottom edge of the strap rides up the inclined edges 74 of the bracket 68 thereby elevating the rearmost end of the spring. At the same time, the forward end of the spring is carried upwardly by the member 78 and, as a result, the axis of the said spring lies above the plane of the bearings 76 and the clamp remains closed or locked until released manually.

As many possible embodiments may be made in the invention, and as many changes might be made in the embodiment above set forth, it is to be understood that all matters hereinbefore set forth or shown in the accompanying drawings are to be interpreted as illustrative and not in a limiting sense.

Having thus described the invention, what is claimed as new and desired to be secured by Letter Patent is:

1. A slide skate structure including a heel strap and comprising, in combination, an elongated thin hollow body having substantially flat spaced parallel top and bottom walls and a shallow peripheral connecting wall, one end portion of said body being curved out of the plane of its top and bottom walls, and a housing on said curved end portion integral with the top wall and into which the heel strap extends, said housing being adapted to enclose means to tension the heel strap.

2. A slide skate structure including an adjustable heel strap and comprising, in combination, an elongated thin hollow body having substantially flat spaced parallel top and bottom walls and a shallow peripheral connecting wall, one end portion of said body being curved upward-

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ly out of the plane of its top and bottom walls, a longitudinal channel formed in the bottom wall defining spaced runner surfaces, and a housing on said curved end portion integral with the top wall and into which the heel strap extends, said housing being adapted to enclose means to tension the heel strap.

3. A slide skate structure including a heel strap and comprising, in combination, a substantially rectangular bottom wall, pairs of spaced marginal upstanding flanges on said bottom wall, a substantially rectangular top wall, depending marginal flanges on said top wall seated in the spaces between said pairs of flanges, said walls having mutually curved and tapered end portions, an upwardly extending housing integral with the curved end portion of the top wall and into which the forwardly extending ends of the heel strap are adapted to extend, said housing including a substantially vertically disposed toe plate and being adapted to house means to tension said heel strap.

4. A slide skate structure having a heel strap, said structure comprising, in combination, a substantially rectangular bottom wall, pairs of spaced marginal flanges on said bottom wall, a substantially rectangular top wall, depending marginal flanges on said top wall seated in the spaces between said pairs of flanges, said walls having mutually curved end portions, an upwardly extending housing portion integral with the curved end portion of the top wall and into which the heel strap extends, one wall of said housing constituting a toe plate, and the housing being adapted to enclose means operable for tightening said strap to draw the wearer's foot firmly against the toe plate.

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