June 8, 1971 J. P. DREW 3,583,083

TRACTION IMPLEMENT

Filed March 31, 1970

FIG. 1.

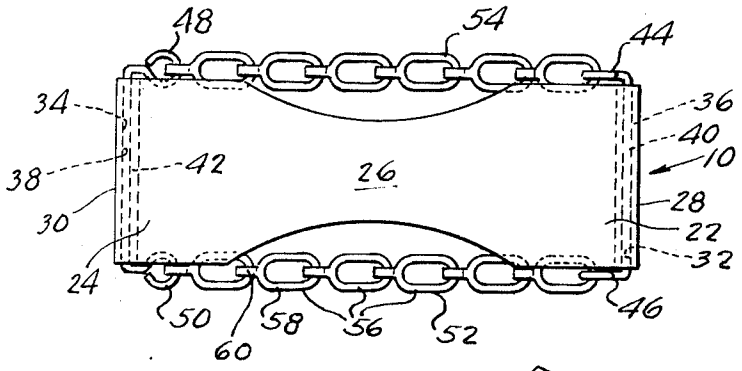


FIG. 2.

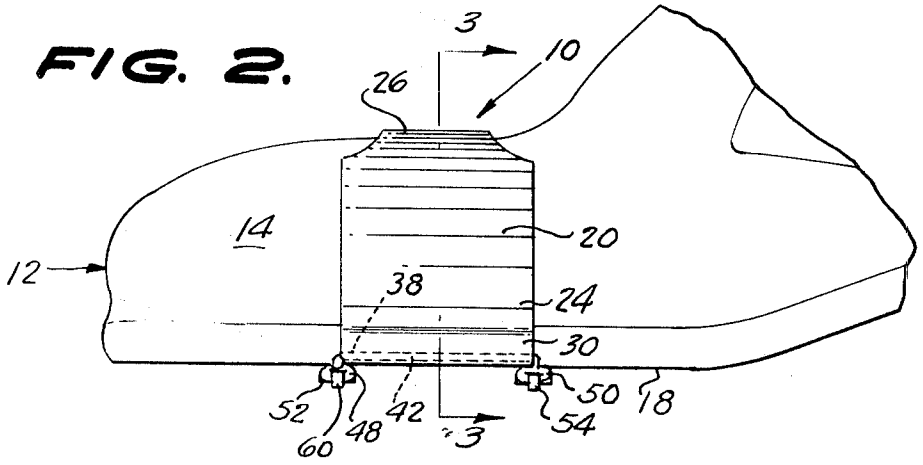
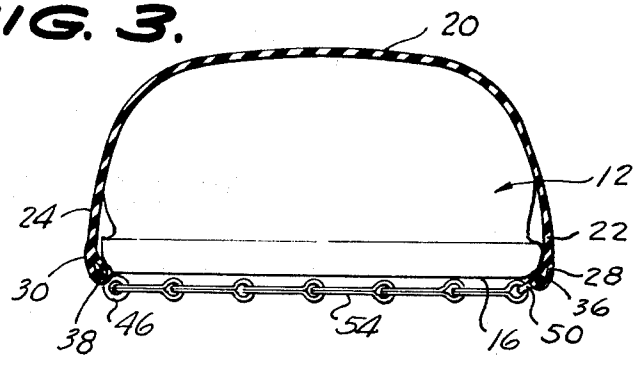


FIG. 3.



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TRACTION IMPLEMENT

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ABSTRACT OF THE DISCLOSURE

An attachment for overshoes or boots has a resilient strap to frictionally grip the upper material of the boot or shoe, and chains having a flat extent to span the shoe sole to prevent slips or falls.

BACKGROUND OF THE INVENTION

(1) Field of the invention

This invention relates to that category of device sometimes referred to as an ice creeper, and which functions as an apparel attachment safety aid for walking on slippery surfaces such as icy sidewalks and the like.

(2) Statement of the prior art

The prior art pertaining to devices of this nature is highly developed, and may be summarized as inclusive of the general concept of supplying a strap with associated chains for disposition about a shoe. Examples of patented devices within this definition are listed as follows:

Pinto, Pat. No. 1,175,660, Mar. 14, 1916; Groebl, Pat. No. 1,492,513, Apr. 29, 1924; Norman, Pat. No. 2,065,727, Dec. 29, 1936; Bowman, Pat. No. 2,296,660, Sept. 22, 1942; Priess, Pat. No. 2,366,649, Jan. 2, 1945; Howard, Pat. No. 2,425,939, Aug. 19, 1947.

SUMMARY OF THE INVENTION

During periods of inclement of freezing weather, when traction implements are most likely to be required, overshoes or boots are normally in use. An objection to the devices heretofore proposed is that such devices do not reliably grip foot over apparel of that type, or that the devices cause damage to overshoes. In view of the desirability of employment of a device of this general nature, particularly for use by aged or infirm individuals, to prevent falls occasioned by slips on icy or slippery surfaces, the present invention comprehends a traction implement particularly adapted to wearing with overshoes or boots. The principal object of the invention resides in the provision of a device of the type indicated which is easily applied to the foot upper and which frictionally grips the same securely but is unlikely to damage the boots.

A further important objective concerns the employment of a chain made up of elongated, flat links, and short upstanding links, presenting a major flat surface on the walking area.

Still another objective is that of supplying a pair of connectors linking the chain to the strap means of the device in such manner that both the strap and the boot are protected from damage.

Other and further objects and advantages of the invention will become apparent to those skilled in the art from a consideration of the following specification when read in conjunction with the annexed drawing.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a top plan view of a traction implement constructed and assembled in accordance with the teachings of this invention;

FIG. 2 is a side elevational view of the traction implement as applied to an overshoe; and

FIG. 3 is a sectional view taken substantially on the line 3—3 of FIG. 2, looking in the direction of the arrows.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to the drawing in more detail, a traction implement within the scope of this invention is therein generally designated by reference numeral **10**. The invention is shown in FIGS. 2 and 3 in its principal intended environment of use—applied to an overshoe **12** having an upper **14** of rubber or similar material and having a sole **16**. The sole **16** has a bottom peripheral edge **18**.

The traction implement comprises an elongated strap **20** having opposite end portions **22** and **24**, and having a central section **26** of reduced dimension. The reduction in width of the central section enhances the ability of the strap to be stretched for attachment to an overshoe or boot. The strap is formed of rubber or a material of like characteristics, and its extremities are reverted and heat sealed or otherwise caused to adhere to the end portions to form elongated, tubular sleeves **28** and **30**. Each of the sleeves has a passageway **32**, **34**, respectively, extending therethrough.

A pair of connectors **36** and **38** are provided, preferably formed of metal or other rigid material. The connectors are substantially of U-shape, including elongated, straight bight portions **40** and **42**. At the opposite ends of the bight portion **40**, first eye members **44** and **46** are provided. At the corresponding ends of the bight portion **42**, second eye members **48** and **50** are provided, both sets of eye members being disposed substantially perpendicular to the bight portions, but the sets being bent in opposite orientation to the respective bight portions so that their major flatwise extents are in diametrically perpendicular planes, as shown in FIG. 1, for a purpose appearing below.

The bight portions of the connectors extend through the passageways of the sleeves of the strap, with the eye members projecting outwardly thereof. Thus assembled, the eye members are normally disposed in laterally aligned pairs, including a first pair **46** and **50**, and a second pair **44** and **48**.

Extending between the first and scond pairs of eye members are chain members **52** and **54**. Each of the chain members comprises a series of links **56** including a first elongated loop portion **58** and a second loop portion **60** arranged in substantially right angular relation to the first loop portion. The loop portions of the chain are linked in series between the pairs of eye members, link loop portions **58** being engaged with the eye members **44** and **46**, and loop portions **60** being engaged with the eye members **48** and **50**.

The strap is stretched to permit engagement of the traction implement about the overshoe, and following release of the stretching force, frictionally engages the similar material of the overshoe. The sleeves are disposed in a manner such that the eye members project below the peripheral edge **18** of the sole **16**, thus exposing only the metallic components of the implement to contact with pavement and the like and thereby protecting the strap and sleeve from wear and damage. The opposite orientation of the eye members of the connectors, taken with the provision of the elongated loop portions **58** of the chain and the short second loop portions tends to dispose the major flat extent of the chain in a position to contact the pavement. This avoids snagging of the chain on slight protrusions, and increases the overall safety factor of the invention.

I claim:

1. The combination, with foot apparel having an upper formed of resilient material and having a sole, of a traction implement, the traction implement comprising:

an elongated strap formed of resilient material, having opposite end portions and a central section of reduced dimension;

a tubular sleeve formed of said resilient material fixedly secured to the strap at each of the end portions thereof;

a connector for each end portion, the connectors each comprising an elongated, linear bight portion disposed in the sleeve, and eye members at each end of the bight portion disposed perpendicularly with respect to the bight portion and diametrically opposite with respect to one another;

the eye members being of open form and the eye members of the respective connectors being arranged in laterally aligned pairs when the traction implement is in use;

a pair of chain members, each comprising a series of links including a first elongated loop portion and a second loop portion arranged in right angular relation to the first loop portion, the links being disposed in a series with the first loop portion engaged with

the second loop portion of an adjacent link, and the chains being extended between and engaged with respective pairs of eye members; and

the implement being engaged on the foot apparel with the strap frictionally gripping the resilient material of the upper, and with the chains extended across the sole thereof.

2. The invention of claim 1, wherein:

the sole has a bottom peripheral edge; and

the eye members are disposed below the bottom edge of the sole.

3. The invention of claim 1, wherein:

the strap is formed of rubber; and

the chain and the connectors are metallic.

References Cited

UNITED STATES PATENTS

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U.S. Cl. X.R.

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