March 27, 1962 A. J. PIEL 3,026,973

WHEEL BLOCK

Filed Dec. 31, 1959

Fig. 1.

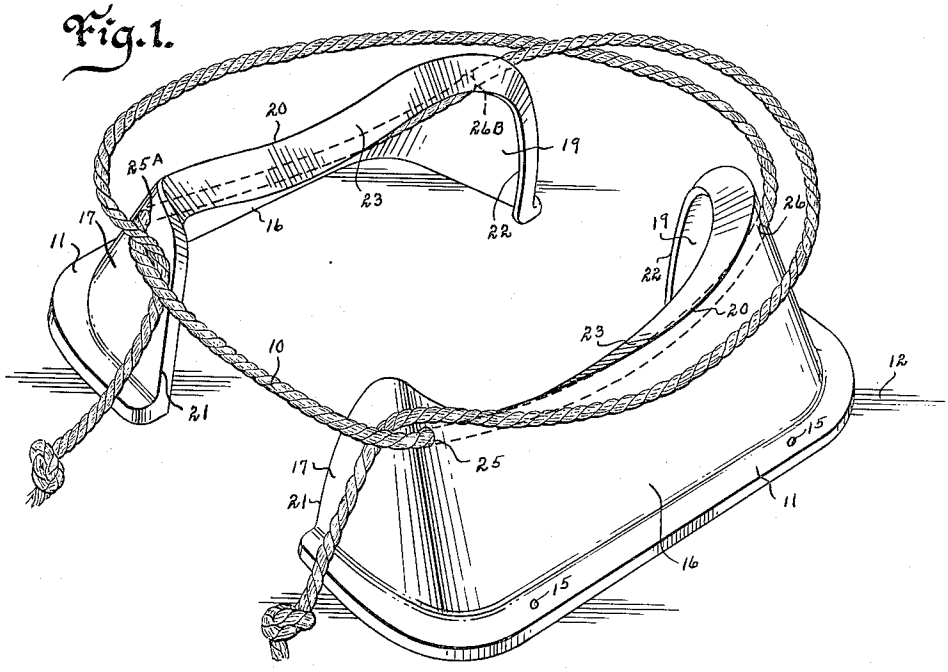


Fig. 2.

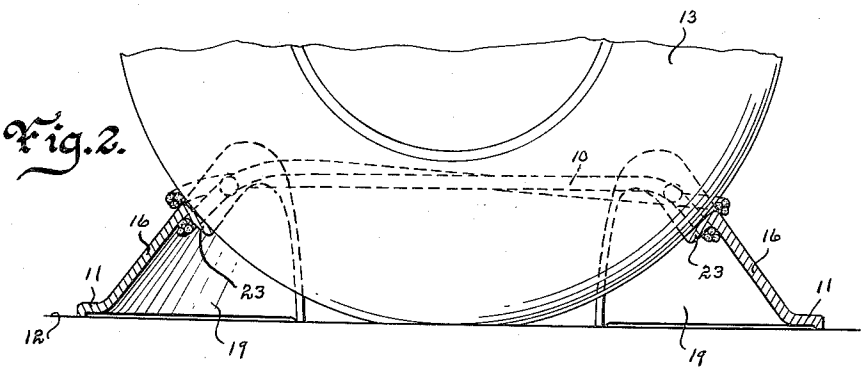
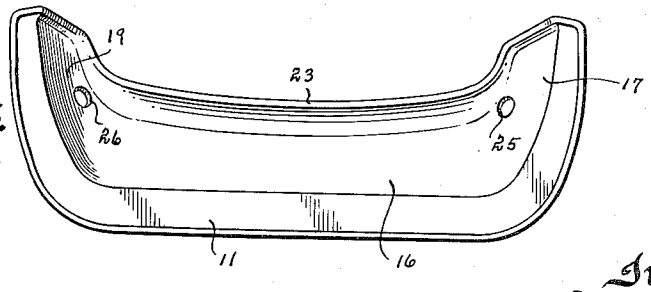


Fig. 3.



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WHEEL BLOCK

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3 Claims. (Cl. 188—32)

This invention relates to wheel blocks and more particularly to lightweight ones.

The use of wheel blocks to prevent the rolling movement of vehicles at times is old. Usually such blocks consist of blocks of wood, triangular in cross section and which are wedged in front of or in back of the wheel to be affected. Often a cable or rope is secured to such blocks to facilitate from a distance their manual removal from adjacent the vehicle wheels. This is especially true of airplane wheel blocks which are removed after the engine has been started, and the whirling engine propeller is a danger hazard.

The chief objection to such wooden blocks is their relatively heavy weight. Also, wood rapidly deteriorates when used in the open. Furthermore, they are bulky, not easily portable, and a plurality of them cannot be nested to occupy a minimum space area.

A still further objection to previous wheel blocks is that a given block does not prevent the rolling of the wheel in both directions.

Therefore one of the principal objects of my invention is to provide a lightweight unit wheel block that will effectively prevent a wheel from rolling both forwardly and rearwardly.

More specifically, the object of this invention is to provide two duplicate shell members adapted to extend in front of and to the rear of a wheel, respectively, and which are adjustably connected together as a unit.

A further object of this invention is to provide a unit two shell block that is capable of being adjustably tightened onto the rear tread side and forward tread side of a wheel.

A still further object of this invention is to provide a wheel block that is chiefly fabricated from sheet metal, plastic or like.

A still further object of this invention is to provide a plurality of shell constructed wheel blocks that are capable of nesting with each other.

Still further objects of my invention are to provide a wheel block that is economical in manufacture, durable in use, and refined in appearance.

These and other objects will be apparent to those skilled in the art.

My invention consists in the construction, arrangements, and combination of the various parts of the device, whereby the objects contemplated are attained as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which:

FIG. 1 is a perspective view of my wheel block unit;

FIG. 2 is a cross-sectional view of my wheel block unit illustrating how it holds a wheel from moving both forwardly and rearwardly; and

FIG. 3 is a bottom view of one of the shell units and more fully illustrates its construction.

As herebefore indicated, the chief elements of my wheel block unit consist of two duplicate shell members. These two shell members are held together by any suitable means such as a rope or like **10**. Inasmuch as both shells are duplicates of each other, I will describe only one shell, it being understood that the numerals applying to the described shell also apply to the other shell. The numeral **11** designates a base flange, horizontally U-shaped in character as shown in FIG. 1. It is this portion **11** of the shell that rests on the ground or like supporting surface **12**, with the open end of the U-shaped

base flange extending toward and at each side of the tread of a wheel **13** as shown in FIG. 2. The numeral **15** designates nail, screw, bolt or like holes in the base flange, if it is desirable to rigidly secure the shell to a supporting surface. Extending from the U-shaped base flange **11** is an inwardly and upwardly extending wall to provide a central wall portion **16** and the two end wall portions **17** and **19**. These wall portions are joined and are of one curved piece. The central sloped wall portion **16** extends upwardly and toward the tread of the wheel being held. The two sloping portions **17** and **19** which are principally on the two arm end portions of the base flange, respectively, extend upwardly, inwardly toward each other, and upwardly and inwardly toward the two sides of the wheel that are at each side of the wheel tread portion. The areas where the two side wall portions join with the central wall portion are rounded and curved as shown in the drawings. The top edge of the central portion is concave and therefore bows downwardly to a height substantially less than that of the maximum height of the two end wall portions. The upper edges, however, of the two end wall portions are rounded and curved to join flush with the top edge of the center wall portion. Thus the center wall portion and two end wall portions are of one curved element and this one curved element has a downwardly curved center top edge **20** and two substantially vertical spaced apart edges **21** and **22** as shown in FIG. 1. By the rounded construction, the upper marginal edges of the end wall portions **21** and **22** will be upwardly curved. The numeral **23** designates an inwardly extending rim flange on the top marginal edge of the wall portion and the free marginal edges of the two wall end portions. This flange **23** on the central wall portion extends forwardly and downwardly to conform with that part of the tread of the wheel being held as shown in FIG. 2. At the top area where the end wall portion **17** joins the center wall portion is a hole **25**. At the top area where the end wall portion **19** joins the center wall portion is a hole **26**. To distinguish the two shells when the rope **10** runs through these holes **25** and **26**, I have used the numerals **25A** and **26B** to designate the holes in one of the shells. The two shells are placed facing each other, i.e., their open U-ends are toward each other.

To secure the two shells together, I pass the center of the rope downwardly through the two holes **25** and **25A**. One end portion of the rope is then extended under the center wall portion of the shell having the hole **25**, thence through the hole **26**, thence back around the outer side of the shell having the hole **25A**, and thence under the central portion of the rope that extends between the holes **25** and **25A**. The other end portion of the rope is extended under the central wall portion of the shell having the hole **25A**, thence through the hole **26B**, thence back around the outer side of the shell having the hole **25** and thence under the central portion of the rope that extends between the holes **25** and **25A**. This described path of the rope is shown in FIG. 1 and adjustably holds the two shells together.

To use the device, the two end portions of the rope are removed from under the central portion of the rope. The two shells then have the space between their far ends open and one shell is then placed in front of the wheel to be held and the other shell is placed at the rear of the wheel. The rope is then run as herebefore described. By pulling on the two ends of the rope, the two shells will be brought toward each other thus clamping the two shells onto the front and rear sides of the tread of the wheel as shown in FIG. 2. By extending the end portions of the rope under the central portion of the rope and near the holes **25** and **25A**, these ends will be clamped

under this central portion of the rope and the shell's ends 17 and will thereby be held against slippage. To remove the device from a wheel, it is merely necessary to remove the end portions of the rope from under the central portion of the rope, and the two shells may be moved away from each other. The two shells may be nested with each other. It will be appreciated that the device will fit many tread width sized wheels, and also wheels of different diameters.

Some changes may be made in the construction and arrangement of my wheel block without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims, any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim:

1. In a wheel block means, a first shell having a first hole in one of its end portions and a second hole in its other end portion, a second shell having a first hole in one of its end portions and a second hole in its other end, and an elongated flexible rope member extending first to the inner side of said first shell through its second hole, thence extending out through its first hole, thence to the second shell and through the first hole of said second shell to the inner side thereof and thence out through the second hole of said second shell; said elongated flexible rope member having its two free end portions extending back of that portion of the elongated flexible rope member that extends between the two first holes of the two shell members whereby said first and second shells can be adjustably positioned and secured in proper relation to each other.

2. In a wheel block means, a first shell having a first hole in one of its end portions and a second hole in its other end portion, a second shell having a first hole in one of its end portions and a second hole in its other end, an elongated flexible rope member extending first to the inner side of said first shell through its second hole, thence extending out through its first hole, thence to the second shell and through the first hole of said second shell to the inner side thereof and thence out through the second hole of said second shell; said elongated flexible rope member having its two free end portions extending back of that portion of the elongated flexible rope member that extends between the two first holes of the two shell members, and an inwardly extending top flange on each of said shell members extending over that portion of the elongated flexible rope member that extends along their inner sides, respectively whereby said first and second shells can be adjustably positioned and secured in proper relation to each other.

3. In a wheel block means, a first shell having a first hole in one of its end portions and a second hole in its other end portion, a second shell having a first hole in one of its end portions and a second hole in its other end, an elongated flexible rope member extending first to the inner side of said first shell through its second hole, thence extending out through its first hole, thence to the second shell and through the first hole of said second shell to the inner side thereof and thence out through the second hole of said second shell; said elongated flexible rope member having its two free end portions extending back of that portion of the elongated flexible rope member that extends between the two first holes of the two shell members, and an inwardly and downwardly extending top flange on each of said shell members extending over that portion of the elongated flexible rope member that extends along their inner sides, respectively whereby said first and second shells can be adjustably positioned and secured in proper relation to each other.

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