

April 12, 1932.

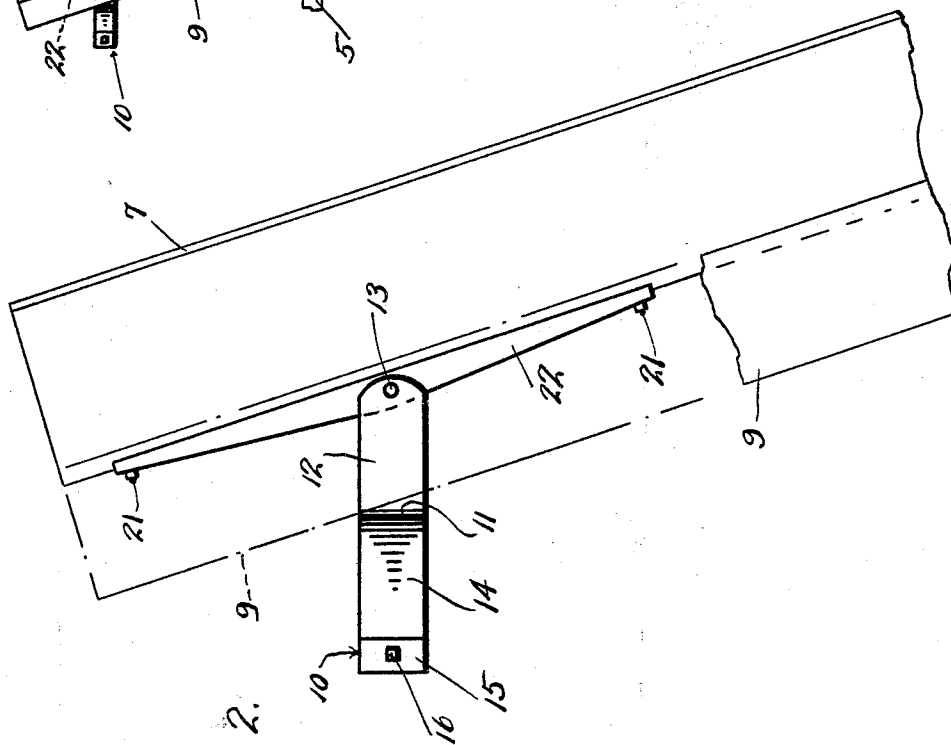
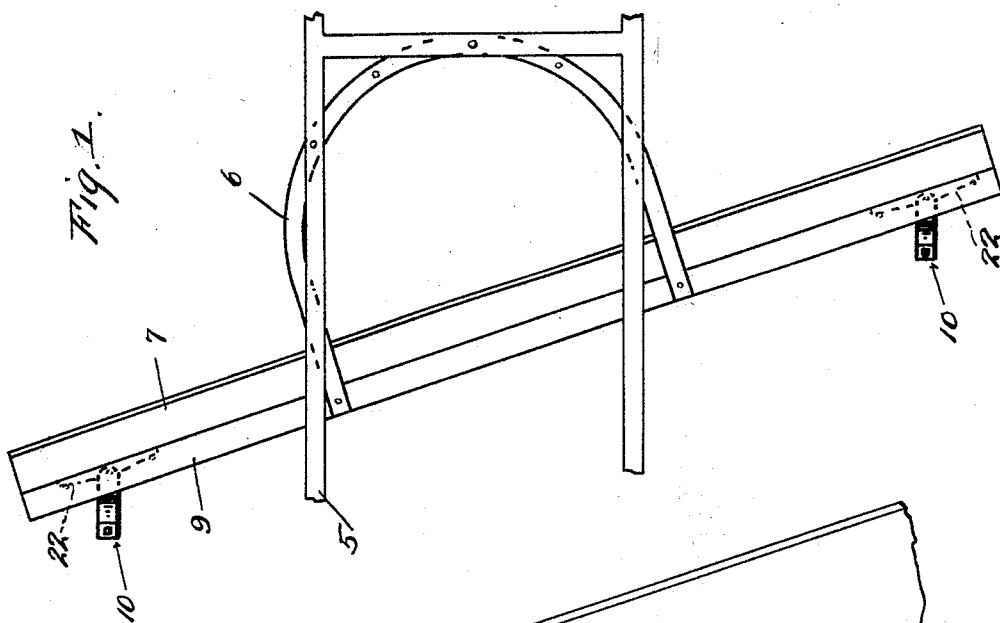
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1,853,115

STABILIZER FOR ROAD GRADERS

Filed April 24, 1931

2 Sheets-Sheet 1



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STABILIZER FOR ROAD GRADERS

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2 Sheets-Sheet 2

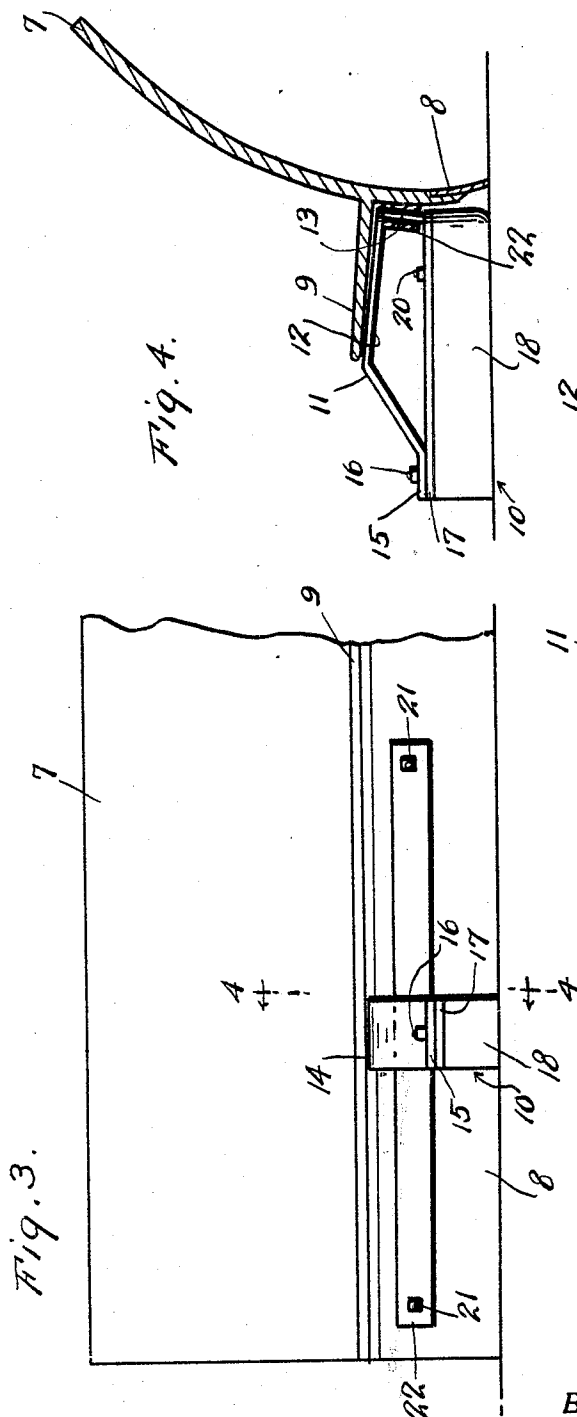
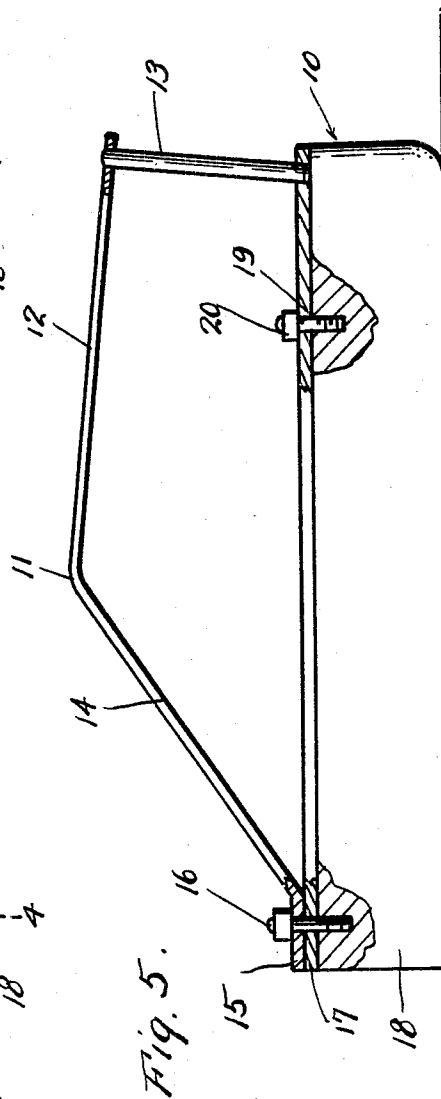
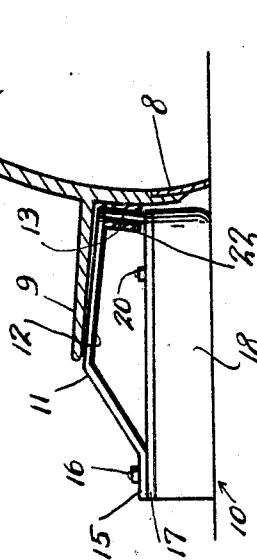


Fig. 4.



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UNITED STATES PATENT OFFICE

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STABILIZER FOR ROAD GRADERS

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This invention relates broadly to road maintainers, and the primary object of this invention is to provide a device which, may be termed a stabilizer, adapted to be fastened to the mold board, blade or beam of the road maintainer and capable of sliding over the level surface of the road in the rear of the maintainer blade for maintaining the blade at the proper plane to insure the cutting of the blade at an even and uniform depth so that the finished surface of the graded road will be plain and smooth, and free of all corrugations or ruts.

The nature of the invention, together with many other objects and advantages will be apparent from a study of the following description, taken in connection with the accompanying drawings wherein:

Figure 1 is a plan view of a portion of a road grader showing my invention as applied to the maintainer blade of the road maintainer.

Figure 2 is a plan view of the stabilizer or attachment as applied to one end of the maintainer blade.

Figure 3 is a rear elevation of an end portion of the maintainer blade for more clearly illustrating the invention as applied thereto.

Figure 4 is a detail sectional elevational view taken substantially on the line 4—4 of Figure 3.

Figure 5 is a side elevational view of the stabilizer per se, certain parts being broken away.

With reference more in detail to the drawings, it will be seen that 5 designates a portion of a frame of a conventional type of road maintainer, numeral 6 indicates the carrier bar which carries the mold board 7, the latter being provided at its lower edge and on the front side thereof with the maintainer blade 8. The mold board 7 adjacent the lower edge thereof has projecting rearwardly a brace rib 9 that extends for substantially the full length of the mold board.

In carrying out my invention, I provide rearwardly of the mold board, and adjacent each end thereof an attachment or stabilizer designated generally by the reference character 10.

Since the stabilizers 10 are identical in construction, it is thought that a detail description of one will teach the construction of the other.

Each stabilizer 10, comprises an angular supporting bracket 11 that includes an end portion 12 inclined in the direction of or toward the mold board 7 and at its terminal supported on the upper end of a vertical pivot pin 13. The bracket 11 includes a downwardly and rearwardly inclined end portion 14 terminating in an apertured lug 15 for accommodating an attaching bolt 16.

The pivot pin 13 rises from the forward end of a shoe carrying plate 17 that is disposed on the upper side of a substantially elongated rectangular block or body 18 constituting a shoe, the bottom or lower face of which is adapted to ride over the surface of the graded road rearwardly of the blade 8. The lower face of the shoe 18 is substantially flush with, or on a plane with the plane of the lower edge of the blade 8.

The plate 17 at its rear end is secured to the shoe 18 through the medium of the bolt 16 which is threadedly engaged with the shoe 18 and extends through the corresponding end of plate 17 and the end 15 of the bracket 11. A second bolt 19 has one end threaded in the shoe 18 adjacent the forward end of the shoe and the upper end of the bolt 19 extends through the plate 17 and has a nut 20 threadedly engaged with said upper end.

Bolted as at 21 to the mold board 7 beneath the rib 9 is a bar 22 that tapers toward its ends. Intermediate its ends, the bar 22 is provided with a vertical opening for accommodating the pivot pin 13 so that as is apparent the stabilizer 10 is pivotally supported rearwardly of the mold board for swinging movement laterally with respect to the direction of travel of the grader.

In actual practice then, it will be seen that with a stabilizer 10 located rearwardly of the mold board in operative relation to the blade 8 and adjacent opposite ends of the mold board, that the shoes 18 of the stabilizers will travel over the surface of the graded road even with the lower edge of the maintainer blade rearwardly of the blade thus prevent-

ing either end of the blade cutting at a greater depth than the other end of the blade thereby insuring the blade being maintained at a uniform cutting depth throughout its length. This further insures the blade cutting or scraping any rises or ridges so that upon completion of the grading operation the treated surface will be level and smooth. Further the shoe 18 travelling rearwardly of the maintainer blade serves of itself to level and smooth the road surface.

It will be further appreciated, that an attachment of this character will increase the life of the blade and will reduce friction of the blade on the road bed.

Even though I have herein shown and described the preferred embodiment of the invention it is to be understood that the same is susceptible of changes, modifications and improvements coming within the scope of the appended claims.

Having thus described my invention, what I claim as new is:

1. A stabilizer for the maintainer blade of a road maintainer, and in combination, a mold board, a maintainer blade carried by said mold board, a plate, a pivot pin rising from one end of the plate, a bar, means for mounting the bar on the mold board adjacent one end thereof, said bar provided with a vertical opening, and said pivot pin extending through said opening, a bracket connected at one end with the upper end of said pivot pin, means for connecting the free end of the bracket with the free end of said plate, and a surface engaging element mounted on said plate.

2. A stabilizer for the maintainer blade of a road maintainer, and in combination, a mold board, a maintainer blade carried by said mold board, a plate, a pivot pin rising from one end of the plate, a bar, means for mounting the bar on the mold board adjacent one end thereof, said bar provided with a vertical opening, and said pivot pin extending through said opening, a bracket connected at one end with the upper end of said pivot pin, means for connecting the free end of the bracket with the free end of said plate, and a surface engaging element mounted on said plate, said road engaging element comprising a substantially elongated rectangular block having one surface thereof substantially flush and in the same horizontal plane with the cutting edge of blade.

In testimony where I affix my signature.

EUGENE E. BURNS.