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STABILIZER FOR ROAD MAINTAINER MACHINES

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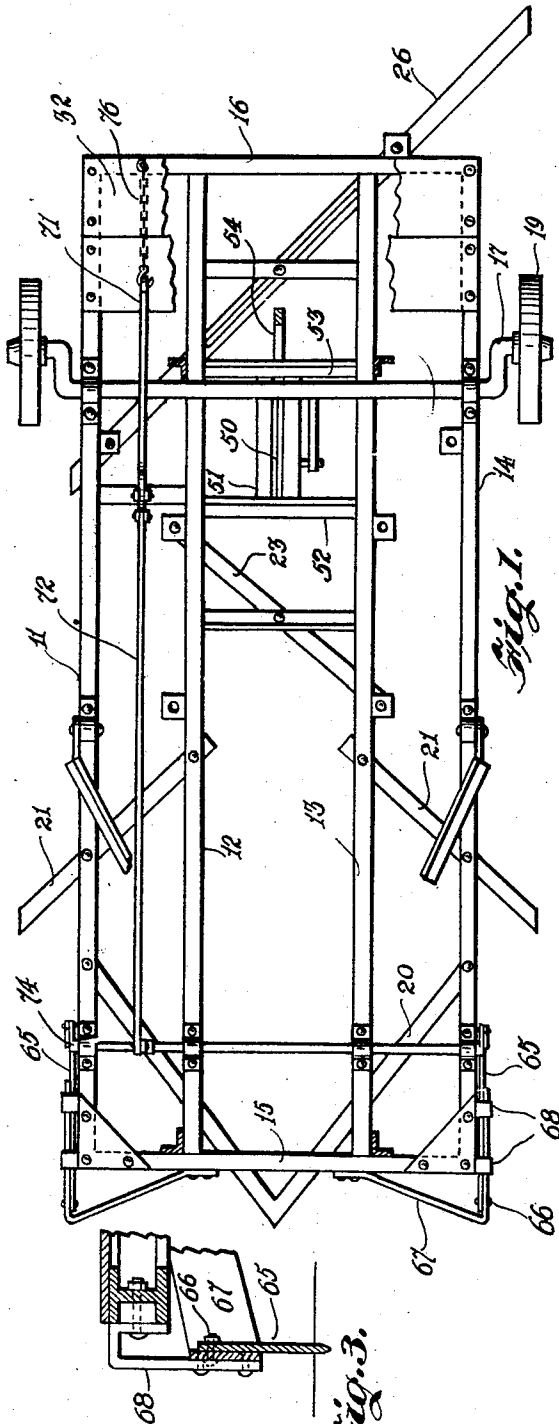


Fig. 1.

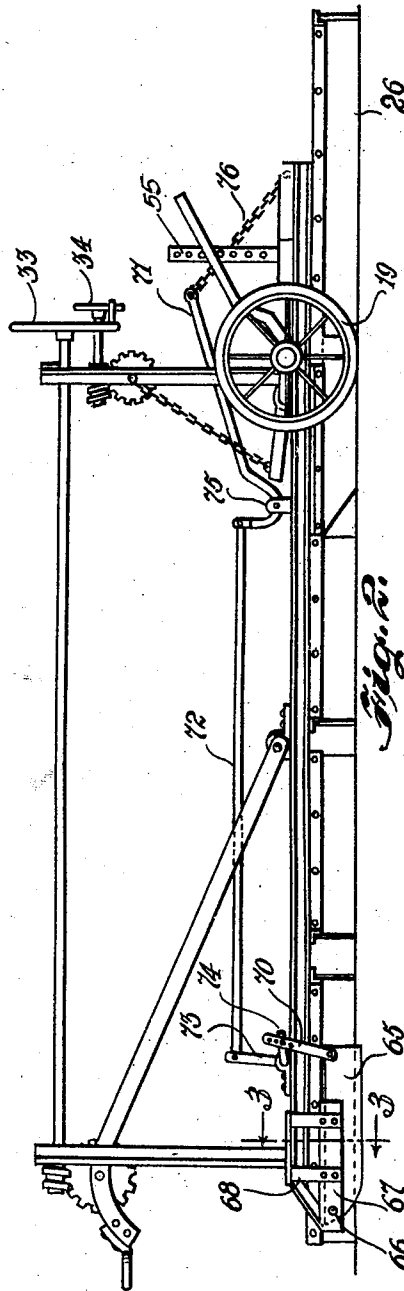


Fig. 2.

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STABILIZER FOR ROAD-MAINTAINER MACHINES

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This invention relates to new and useful improvements in road graders, or machines for maintaining a road or highway in perfect condition by the elimination of corrugations and the like, frequently present on dirt and gravel roads.

The present invention relates further to that type of road grading machine filed in the United States Patent Office June 19, 1928, Serial No. 286,633 by the applicant herein.

The particular object of this invention is to improve the machine by the addition of parts bringing about a substantially perfect stabilization of the road grader and practically eliminating all side-sway, chattering and vibration.

Since it is highly important and advantageous that a machine of this character and type be operated with as great a speed as possible, the additional features carried out in the present invention make it possible for the road grader illustrated and described herein to travel at a tested speed of from eight to twenty miles per hour. Moreover the increased speed in no way detracts from the perfect working of the machine.

In the drawings annexed hereto and forming a part of this specification:

Figure 1 is a top plan view of a road grading machine embodying the invention.

Figure 2 is a side elevational view of the machine, and

Figure 3 is a detailed vertical sectional view, taken along the line 3—3 of Figure 2.

A detailed description will now be made of the drawings, numerals being used to designate the various parts forming the subject matter of the improvements. Such portions of the machine as have been heretofore described in the former application, however, will be explained briefly for a clear understanding of the invention.

The machine has a framework of bars 11, 12, 13 and 14 and cross connecting bars 15 and 16. The framework is supported upon a tilting or crank axle 17, carried by the wheels 19. A pair of blades 20 for cutting purposes are disposed at the front of the machine in V-shape, and blades 21 for gathering

up loose material are positioned to the rear of the blades 20. There is also an adjustable blade 23, for wasting the road material quickly, and finally a surfacing blade 26, also adjustably arranged.

A platform 32 provides standing room for the operator, enabling the latter to face the road being worked and in easy reach of the control wheels 33 and 34.

A stabilizing blade 50 is pivoted at its front end between a pair of angle irons 51, the angle irons being bolted to a couple of cross bars 52 and 53. The cross bars are fastened between the longitudinal frame beams 12 and 13. A foot lever 54, pivoted at its forward end to the cross bar 53, and engaged at its opposite end with a suitable member 55, enables the blade 50 to be depressed at its rear part into the road. This operation results in substantially eliminating side-sway of the machine, chattering and vibration, the instant such indications are apparent to the operator.

The additional features of the machine and on which a patent is now sought reside in two stabilizer blades 65. One of these blades at each front corner of the frame as shown in Figure 1, each blade being pivoted at 66 to a brace 67 connected to the front of the framework. The brace 67 is also connected to the side corners of the framework by spaced brace members 68, bolted to the bars 11 and 14. These blades, however, may be affixed in operable position in any manner which will permit the blades to be aligned parallel with the bars 11 and 14 and permitted to be pivoted as shown.

The front portion of the blades 65 are rounded as is evident from Figure 2, and pivoted to the rear end of the blades is a link 70. This link is for the purpose of obtaining a substantially downward and upward movement of the rear end of the blades 65, procured by means of a foot lever 71 in connection with the link 72. It will be observed from Figure 1 that the link 72 is shown pivotally connected to a short member 73, including an integrally-formed arm 74. The arm is in turn pivotally connected to the link 70. From the foregoing, it will be apparent

that depressing the foot lever 71, loosely connected at 75 to the framework, will force the heel or rear portion of the blades 65 into the road surface. This operation can be effected easily and quickly by the operator, the instant any chattering, vibration or side-sway of the machine is noticed. A chain or other means 76 is provided to sustain the foot lever in normal position, and also the link 70 is provided with apertures for adjustment with the arm 74.

The two blades 65 at the front of the grader in connection with the rear blade 50, being parallel to the center line of the roadway, effectually prevent any side-sway, chatter and vibration that might develop. If the least indication of chatter is developed, the operator quickly and easily applies the required pressure to the stabilizer blades and the machine instantly becomes steady.

Manifestly, modifications and alterations are possible in the structure disclosed; such as will be within the scope and meaning of the appended claims.

What is claimed is:

1. A road grader and highway maintainer comprising a framework, means for supporting the framework upon the ground, means for stabilizing the machine when in operation to prevent lateral swaying, vibration and chattering, said means comprising stabilizer blades lying edgewise with the center line of a road and in parallel relationship with the framework and pivoted one to each side of the framework, including means for actuating said blades.

2. A road grader and highway maintainer comprising a framework, means for supporting the framework upon the ground, and means consisting of stabilizer blades pivotally mounted at the front sides of the machine for preventing sidesway and chattering of the machine; means operable from the rear of the machine for depressing the blades into the roadway at indications of sidesway and lateral play and vibration and for holding said blades in said position.

3. In a road grader and highway maintainer, a framework supported upon the ground including scraping and cutting elements; and means for preventing the machine from chattering, vibrating and sidesway motion, especially when traveling at maximum speed; said means comprising a plurality of stabilizer blades disposed at each front side of the machine and pivoted to the frame; said blades operable in unison from the rear of the machine, said operation causing one end of the blades to be depressed into the roadway on indications of chattering, vibrations and sidesway of the machine.

4. In a high speed road grader and highway maintainer, a framework supported upon the ground, including scraping and cutting elements; means for preventing the

machine from chattering, vibrating and side-sway motion, said means comprising a pair of parallel stabilizer blades, one disposed at each side of the machine and pivoted to the frame, and a rear pivoted stabilizer blade centrally mounted and substantially parallel to the two forward blades, and means for moving said stabilizer blades into operative or inoperative position.

In testimony whereof I affix my signature.
HARRY R. ANDREW.