

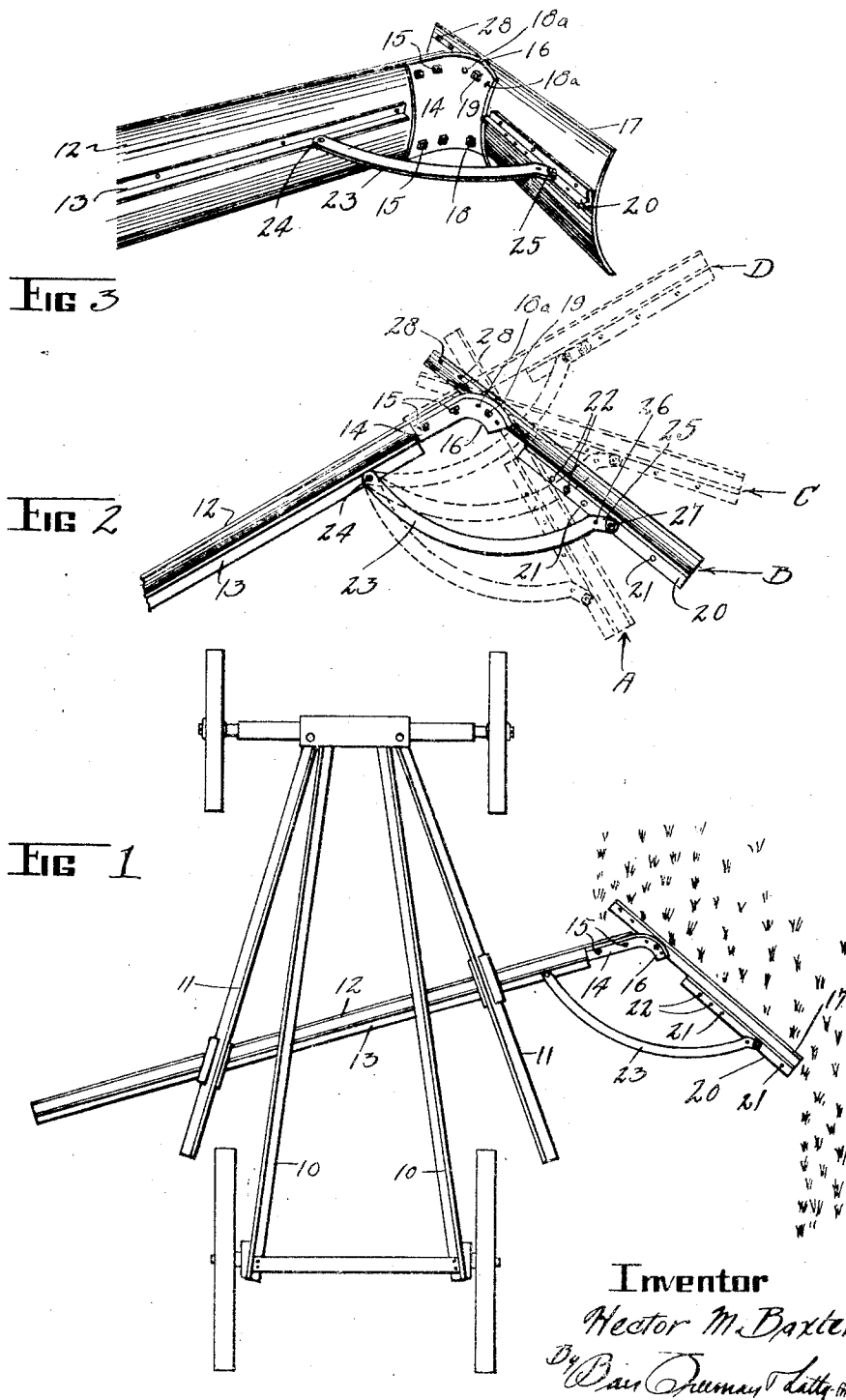
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H. M. BAXTER

GRASS CUTTING ATTACHMENT FOR GRADERS

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UNITED STATES PATENT OFFICE.

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GRASS-CUTTING ATTACHMENT FOR GRADERS.

Application filed July 27, 1925. Serial No. 46,203.

To all whom it may concern:

Be it known that I, HECTOR M. BAXTER, a citizen of the United States, and a resident of Battle Creek, in the county of Ida and State of Iowa, have invented certain new and useful Improvements in a Grass-Cutting Attachment for Graders, of which the following is a specification.

My invention relates to the small grader used for road maintaining, and it is my purpose to provide means to cope with the narrow strip of grass and weeds ordinarily found along the average gravel or dirt highway, and which at the present time is a source of much trouble to the road maintainer.

The ordinary road scraper is built so as to cover one-half of a road in one journey, and ordinarily the grass and weeds growing at the sides of the road are caught by the end of the blade and drawn inwardly, where they tend to roughen the surface and to interfere with the obtaining of a smooth, level road-bed.

In many instances the road maintainer does not attempt to eliminate this strip of grass and weeds for the reason that in order to fully remove the same he must crowd his horses too far to that side of the road on which he is cutting, and cause them undue labor.

My invention contemplates the use of a short auxiliary blade secured to the end of the ordinary grader blade and inclined rearwardly in the direction opposite to that of the grader blade. Means are provided to brace the said auxiliary blade relative to the grader scraping blade and to adjust the angle between the two blades.

With these and other objects in view, my invention consists in the construction, arrangement and combination of the various parts of my 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 plan view of an ordinary road maintaining scraper with my invention attached.

Fig. 2 is a plan view of a portion of the scraping blade, illustrating more in detail the method of attaching the auxiliary blade.

Fig. 3 is a perspective view, from the rear, of the two blades.

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indicate generally the main frame of a road maintaining scraper, which has the arms, 11, carrying the scraping blade, 12. The scraping blade, 12, is reinforced by an L-shaped bar, 13, secured at its rear surface.

In securing my attachment, this bar, 13, is cut away at the forward end of the scraping blade, as shown in the figures, and a plate or bracket, 14, secured to the rear surface of the scraping blade, 12, at the forward end thereof, as shown.

The bracket, 14, is secured by means of tow spaced bolts, 15, extended through suitable openings in the bracket and in the blade, 12, being thereby rigidly secured to the blade. The bracket has a curved portion, as indicated at 16, against which the auxiliary blade, 17, may be secured in any of several adjusted positions.

The blade, 17, is bolted at 18 to the curved portion, 16, near the lower edge thereof, and the openings, 18^a, near the upper edge thereof, are designed to receive a bolt, 19, for securing the blade to the upper portion of the bracket. The openings, 18^a, are arranged equidistant from the bolt, 18, and by securing the blade by extending the bolt, 19, through either of the side openings, 18^a, the blade may be tilted upwardly or downwardly from a horizontal plane, as desired.

To the rear surface of the blade, 17, is secured an angle bar, 20, in which are the spaced openings, 21 and 22.

A brace, 23, is secured to the angle bar, 13, of the blade, 12, by means of a bolt, 24, which allows swinging movement of the brace. The brace, 23, is curved away from the blades, as shown, for a reason which will hereinafter be more fully set forth, and at its other end is provided with a bent portion, 25, which is aligned with the bolt, 24, and provided with two spaced openings, 26. A bolt, 27, is received through the outer of the openings, 26, and any of the openings, 21, when securing the blade, 17, in any of the three positions indicated at A, B and C in Fig. 2.

The bolts, 19, securing the blade, 17, to the bracket, 14, may be shifted so as to alter the point of contact between the blade and the bracket to correspond to the position of the blade. The curved portion of the bracket allows the blade to lie flat against the bracket in any of its adjusted positions.

When it is desired to use the blade, 17, merely as a wing extension of the scraping

blade, 12, the bolts, 15, are withdrawn and inserted through openings, 28, in the blade, 17, and the blade allowed to rest against the forward face of the blade, 12, as indicated in dotted lines in Fig. 2 in the position D.

In the angular positions of the auxiliary blade it is sufficient to attach the brace, 23, by a single bolt at either end, the triangular structure resulting serving to brace the parts in a rigid unit.

However, when the two blades are aligned, this triangular formation is destroyed and it is necessary to rigidly attach the brace, 23, to one of the blades in order that it may function as a brace. To this end the two openings, 25 and 22, are provided, which are adapted to register when the blade is in the position D, and a pair of bolts are used to attach the blade portion, 25, of the brace to the angle bar, 20, through the openings, 22. The curvature of the brace then serves to gain a buttressing effect between the blades, and also to prevent interference between the brace and the bracket, 16.

With the use of such an attachment the grass may be cleaned at the side of the road and thrown into the ditch, without increasing the number of trips, which would otherwise be necessary.

It is desirable to place the grass and weeds in the ditch along the side of the road in order that washouts may be prevented. Such vegetation is not desirable in the center of the road for the reasons already mentioned.

Some changes may be made in the construction and arrangement of the parts of my invention 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 as my invention:

1. In a grass cutting attachment for a road grader having an angularly disposed scraping blade, a bracket secured to the forward end of said blade, an auxiliary blade secured to said bracket, extending

rearwardly and away from said scraping blade, and a brace secured between the said blades to maintain them in such relation.

2. In a grass cutting attachment for a road grader having an angularly disposed scraping blade, an auxiliary blade of less length than said scraping blade, secured to the forward end of said scraping blade and extending away from said scraping blade and rearwardly relative to the normal path of travel of the grader.

3. In a grass cutting attachment for a road grader having an angularly disposed scraping blade, an auxiliary blade of less length than said scraping blade, adapted to be secured to said scraping blade in any of several positions ranging from one wherein said auxiliary blade extends rearwardly and away from said scraping blade at an obtuse angle thereto, to one in which said blades are aligned, a brace hingedly secured to one of said blades, and an angle bar secured to the other of said blades and having a series of spaced openings by means of which said brace may be secured to said angle bar.

4. In a grass cutting attachment for a road grader having an angularly disposed scraping blade, an auxiliary blade of less length than said scraping blade, adapted to be secured to said scraping blade in any of several positions ranging from one wherein said auxiliary blade extends rearwardly and away from said scraping blade at an obtuse angle thereto, to one in which said blades are aligned, a brace hingedly secured to one of said blades, and an angle bar secured to the other of said blades and having a series of spaced openings by means of which said brace may be secured to said angle bar, said brace being curved and having its end bent to align with said angle bar when the two blades are aligned, and said bent end being provided with a plurality of openings to receive bolts to rigidly attach said brace to said angle bar when the blades are in aligned positions.

Signed at Sioux City, in the county of Woodbury and State of Iowa, this 21st day of July, 1925.

HECTOR M. BAXTER.