

Aug. 28, 1923.

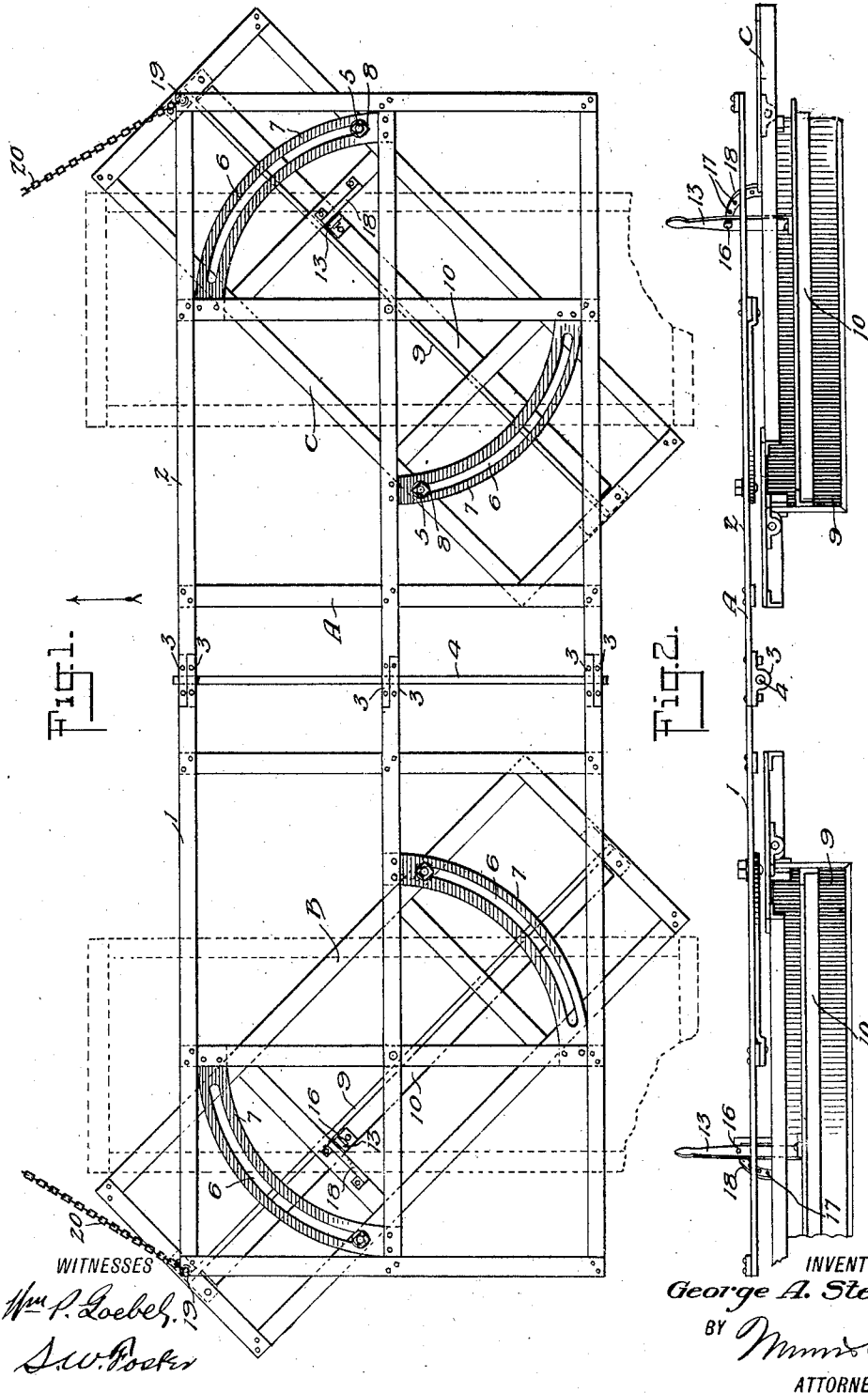
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G. A. STEVENS

ROAD BUILDING AND DITCH CLEANING MACHINE

Filed May 20, 1922

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

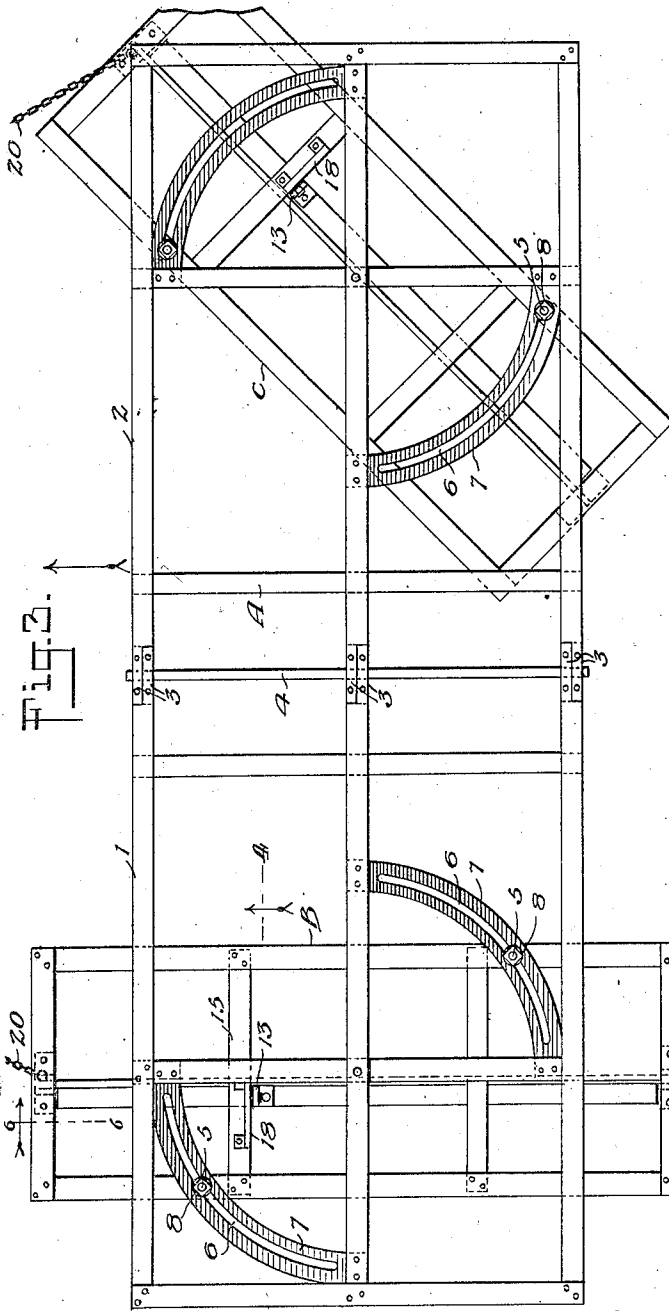


Fig. 2.

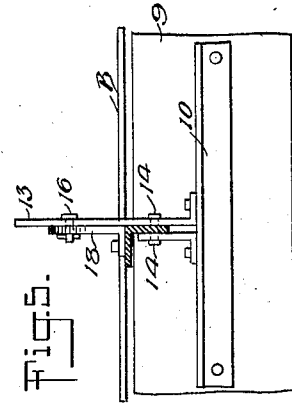


Fig. 5.

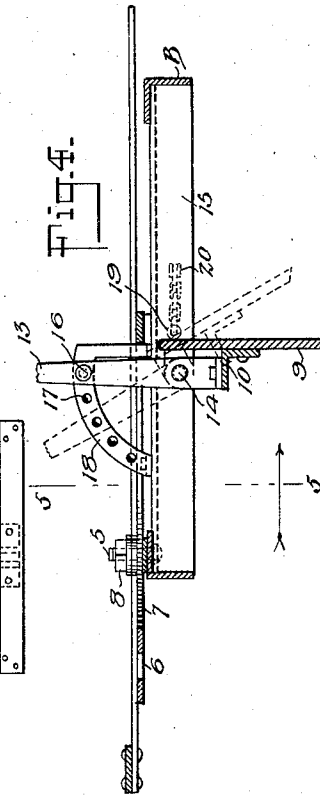
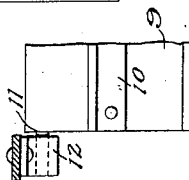


Fig. 4.

WITNESSES

William P. Loebel
S. W. Foster

Fig. 6.



INVENTOR
George A. Stevens
BY *Mumford*
ATTORNEYS

UNITED STATES PATENT OFFICE.

GEORGE ARTHUR STEVENS, OF RINGWOOD, ILLINOIS.

ROAD-BUILDING AND DITCH-CLEANING MACHINE.

Application filed May 20, 1922. Serial No. 562,311.

To all whom it may concern:

Be it known that I, GEORGE A. STEVENS, a citizen of the United States, and a resident of Ringwood, in the county of McHenry and State of Illinois, have invented a new and Improved Road-Building and Ditch-Cleaning Machine, of which the following is a full, clear, and exact description.

This invention relates to improvements in road building and ditch cleaning machines, an object of the invention being to provide an apparatus which when drawn over a road or ditch, will give the proper pitch or crown to the road or angle to the ditch, and which is capable of adjustments in accordance with the work to be done.

A further object is to provide a machine of the character stated which will be comparatively simple in construction, which will be strong and durable in use, which is capable of wide range of adjustment to perform the desired functions, and which is comparatively cheap to manufacture.

With these and similar objects in view, the invention consists in certain novel features of construction and combinations, and arrangement of parts, as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings—

Figure 1 is a top plan view illustrating my improved machine.

Figure 2 is a fragmentary view in rear elevation of Figure 1.

Figure 3 is a view similar to Figure 1 showing the scraper frames in different positions.

Figure 4 is an enlarged view in section on the line 4—4 of Figure 3.

Figure 5 is a fragmentary view on the line 5—5, of Figure 4.

Figure 6 is a fragmentary view in section on the line 6—6 of Figure 3.

1 and 2 represents the two sections of my improved main frame A. These sections 1 and 2 are of general rectangular form comprising crossed bars rigidly secured together and at their inner ends having bearings 3 for the reception of a rod or hinge pin 4, which permits the sections 1 and 2 to assume a desired angular disposition relative to each other, giving the necessary pitch or crown in road building, but it is to be un-

derstood of course, that any suitable means may be provided for rigidly securing the sections if desired.

B and C represent scraper frames. These frames B and C, are also composed of crossed bars rigidly secured together and of general oblong shape, and are provided on their longitudinal members with bolts 5, which are projected through concentrically curved slots 6, in segments 7 which are rigidly fixed to the frame sections 1 and 2, and nuts 8, are screwed onto said bolts 5 to clamp the frames B and C in any desired position of adjustment.

In full lines and dotted lines in Figures 1 and 3, I indicate various positions of the scraper frames B and C relative to main frame A, and it is obvious that these scraper frames will be positioned in accordance with the work to be done. Each scraper frame B and C is provided with a longitudinally positioned scraper blade 9 reinforced by angle bars 10 and provided at their ends with trunnions 11, mounted in bearings 12 in the ends of the scraper frames. Levers 13, are rigidly secured at their lower ends to the angle bars 10, pivotally connected as shown at 14, at a point between their ends to cross bars 15 of the frames B and C, and are held in any position of adjustment by means of pins 16, which are projected through the levers and positioned in any of the series of openings 17 in segments 18 fixed to the frames B and C.

It will thus be noted, that by moving the levers 13, the angular disposition of the scraper blades can be varied and rigidly held in such position by means of the pins 16 and segments 18 as shown most clearly in Figure 4.

To the scraper frames A and B, and preferably to the angle bars 10 of scrapers 9, I provide eyes 19 to which draft chains 20 are secured, and arrows indicate in Figures 1 and 2, the direction of draft.

The operation is as follows: The scraper frames B and C, are given the desired angular adjustment relative to the main frame A, and the blades 9 are given the desired angular adjustment by means of the levers 13 to perform the work necessary and the machine is drawn over the ground or through the ditch in the direction indicated by the

arrows in Figures 1 and 3 to scrape the surface, to give the desired angle or pitch and to uniformly surface the road or ditch.

Various slight changes might be made in the general form and arrangement of parts described without departing from my invention, and hence I do not limit myself to the precise details set forth, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

I claim:

1. A machine of the character described, comprising a main frame composed of two sections hingedly connected, a pair of scraper frames adjacent to the respective ends of the main frame and adjustably mounted thereon, scrapers movably mounted on said scraper frames, and means for adjusting the scrapers to various angles relative to the scraper frame.

2. A machine of the character described, comprising a main frame composed of two sections hingedly connected, a pair of scraper frames adjacent to the respective ends of the main frame, scrapers adjustably mounted on said scraper frames, concentrically slotted bars fixed to the main frame, bolts on the scraper frames positioned in said slotted bars, and nuts on the bolts clamping the scraper frames at the desired angle relative to the main frame.

3. A machine of the character described, comprising a main frame, scraper frames adjustably mounted on the main frame, scraper blades, trunnions on the ends of the

scraper blades and pivotally connected to the scraper frames, and means for varying the angular disposition of the scraper blades relative to the scraper frames.

4. A machine of the character described, comprising a main frame, scraper frames adjustably mounted on the main frame, scraper blades, trunnions on the ends of the scraper blades and pivotally connected to the scraper frames, levers pivotally connected to the scraper frames and fixed at their lower ends to the scraper blades, segments on the scraper frames, and means for securing the levers in various positions of adjustment to said segments.

5. A machine of the character described, comprising a main frame consisting of two sections pivotally connected, scraper frames at the ends of the main frames, scrapers secured to the scraper frames, angle bars secured to the scrapers, and draft devices secured to the forward outer ends of the scrapers.

6. A machine of the character described, comprising a main frame formed of two rectangular sections hinged together, each section being provided with slotted segments, an oblong scraper frame for each section of the main frame, the said frames being provided in their longitudinal bars with bolts working in the slotted segments and having nuts, a scraper pivoted at its ends in each scraper frame, and means for swinging each scraper, whereby to vary its angular position.

GEORGE ARTHUR STEVENS.