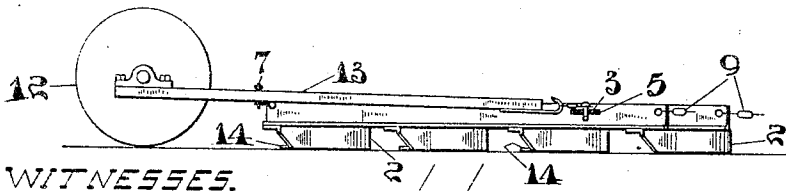
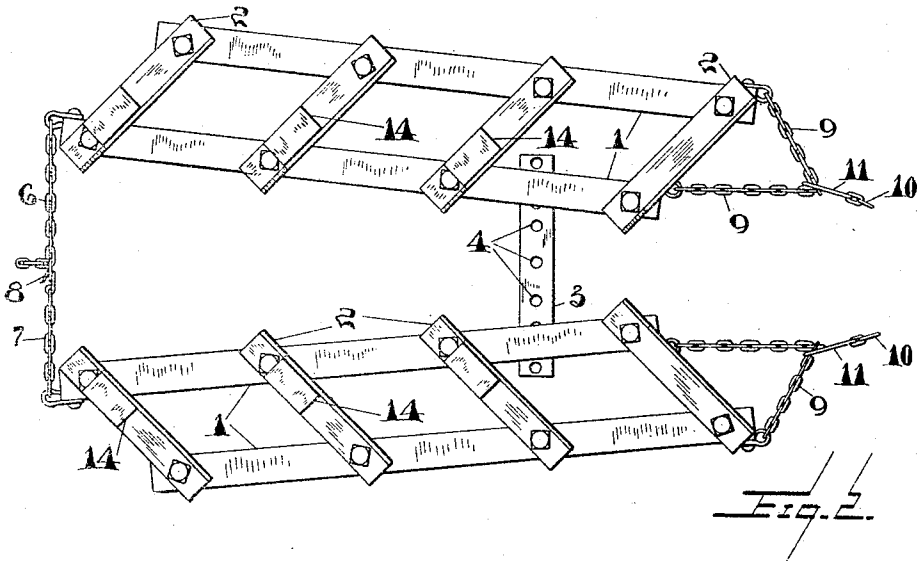
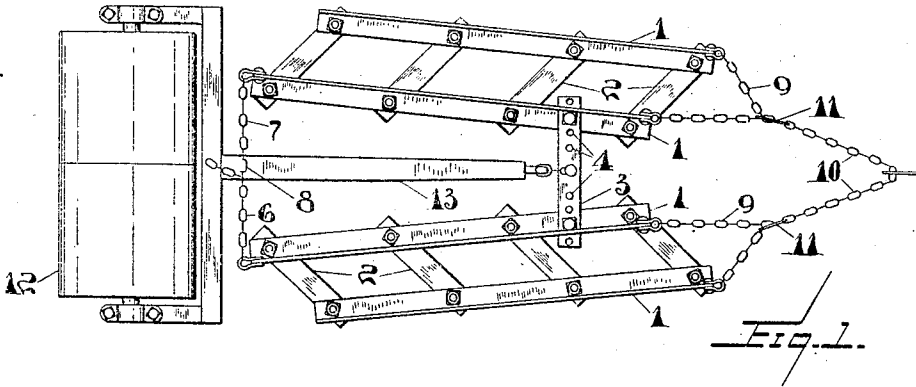


F. RAWLINGS,
ROAD PLANER AND SURFACER.
APPLICATION FILED JAN. 24, 1916.

1,198,576.

Patented Sept. 19, 1916.



WITNESSES.

N. R. Syndall.
E. P. Hall.

INVENTOR.

J. Rawlings.
BY *J. Edward Maybee*
ATTY.

UNITED STATES PATENT OFFICE.

FRED RAWLINGS, OF BOSANQUET TOWNSHIP, LAMBTON COUNTY, ONTARIO, CANADA.

ROAD PLANER AND SURFACER.

1,198,576.

Specification of Letters Patent. Patented Sept. 19, 1916.

Application filed January 24, 1916. Serial No. 74,009.

To all whom it may concern:

Be it known that I, FRED RAWLINGS, of Bosanquet township, (lot 72, Lake road, east concession,) in the county of Lambton, Province of Ontario, Canada, (post-office address R. R. No. 3, Forest, Ontario,) have invented certain new and useful Improvements in Road Planers and Surfacers, of which the following is a specification.

This invention relates to means for grading and crowning road surfaces, and my object is to devise simple and efficient apparatus for that purpose which will leave the road level, smooth and properly packed.

I attain my object by means of a device which may be used in combination with a land roller and which may be briefly described as follows: The scraper is formed in two sections, each comprising a plurality of scraper bars pivoted on two longitudinal frame bars. The sections are held spaced at their forward ends by means of a cross bar adjustably connected to the inner frame bars. The draft is by means of adjustable chains connected to the frame bars so that the scraper bars may work at any desired angle to the longitudinal bars. Adjustable chains control the spread of the rear ends of the sections. A land roller may be connected by means of its tongue with the cross connecting bar and the rear chains may be led under or over the tongue to vary the pressure on the inner ends of the scraper bars.

The invention is hereinafter more specifically described and is illustrated in the accompanying drawings in which—

Figure 1 is a plan view of the apparatus with the land roller connected; Fig. 2 a plan view of the under side of the apparatus without the roller and on a larger scale; and Fig. 3 a side elevation of one of the sections showing also the tongue of the land roller.

In the drawings like numerals of reference indicate corresponding parts in the different figures.

My apparatus comprises two longitudinal sections operating on opposite sides of the center of the road. Each section comprises a plurality of longitudinal frame bars 1, to which are pivotally connected a plurality of scraper bars 2. Both sets of bars are preferably formed of steel angles. The sections are held in spaced relationship at their forward ends by means of the cross connecting bar 3 which is bolted as shown to the inner frame bars 1. A plurality of holes 4

are provided in this cross bar so that the spacing of the sections may be varied as desired. Slots 5 are preferably provided in the upstanding flanges of the longitudinal bars for the passage of this cross bar. This construction relieves the strain on the bolts while not interfering with the swinging of the longitudinal bars thereon. The spacing of the sections at the rear end is controlled by means of two chains 6 and 7, one of which is provided with a hook 8 adapted to hook into links of the other. Draft mechanism is provided whereby the apparatus may be drawn forward with the scraper bars at any desired angle to the longitudinal bars. I preferably employ for this purpose chain bridles 9 connected respectively to the ends of the longitudinal frame bars 1. The draft chain 10 is connected by its ends to the bridles 9. Grab links 11 are provided at the ends of the draft chains for this purpose. By engaging the grab links with the bridles at different points, any desired angle may be given to the scraper bars. By varying the angle of the scraper bars to the longitudinal bars, by varying the spacing of the sections at the front and rear, the apparatus is readily adapted to various conditions which are met with so as to perform the work in a satisfactory manner. This part of the apparatus effects the scraping and grading.

The packing and smoothing is performed by a land roller 12 of ordinary construction provided with the tongue 13 which is pivotally connected with the center of the connecting bar 3. The tongue thus crosses the chains 6 and 7 connecting the rear ends of the sections.

If it is desired to increase the pressure on the roller and decrease the pressure on the inner rear ends of the sections, the chains 6 and 7 may be led over the tongue.

As it is not advisable to cut off too much of the road surface at the crown, I provide one or more of the scraper bars 2 adjacent their inner ends with shoes 14, which extend down substantially to the level of the lower edges of the scraper bars. These not only prevent the scraping action at the inner ends of the bars to which they are attached, but also serve to smooth and level up the dressing of loose earth made by the forward scraper bars. It will be noted that the inner ends of the scraper bars are beveled up to form runner ends. When the draft

chains are adjusted so that the scraper bars occupy substantially a position nearly parallel to the longitudinal bars, they are easily drawn forward lengthwise over bridges 5 and elsewhere for transportation.

What I claim as my invention is:—

1. In a road-making machine, the combination of two sections each comprising a plurality of longitudinal frame bars and a plurality of scraper bars pivoted thereon; draft connections whereby the sections may be drawn over the road with the scraper bars of either section at any desired angle to the longitudinal bars comprising a bridle 15 for each section connected by its ends to the ends of the longitudinal bars of the section and a draft chain adapted to be connected by its ends to said bridles at any desired points between their ends; a connecting bar for the sections near the forward ends thereof; and means for connecting said bar to the adjacent longitudinal bars of the section to vary the spacing between the sections as desired and to permit 25 of the sections swinging relative to one another.

2. In a road-making machine, the combination of two sections each comprising a plurality of longitudinal frame bars and a plurality of scraper bars pivoted thereon; draft connections whereby the sections may be drawn over the road with the scraper bars of either section at any desired angle to the longitudinal bars comprising a bridle 35 for each section connected by its ends to the ends of the longitudinal bars of the section and a draft chain adapted to be connected by its ends to said bridles at any desired points between their ends; a connecting bar for the sections near the forward ends thereof; means for connecting said bar to the adjacent longitudinal bars of the section to vary the spacing between the sections as desired and to permit of the sections 45 swinging relative to one another; and flexi-

ble means connecting the rear ends of the sections adjustable to permit of the sections spreading apart to any desired distance.

3. In a road-making machine, the combination of two sections each comprising a plurality of longitudinal frame bars and a plurality of scraper bars pivoted thereon; draft connections whereby the sections may be drawn over the road with the scraper bars at any desired angle to the longitudinal bars; a connecting bar for the sections near the forward ends thereof; means for connecting said bar to the adjacent longitudinal bars of the section to vary the spacing between the sections as desired and to permit of the sections swinging relative to one another; and a land roller having its tongue connected to the said connecting bar between the sections. 50 55 60

4. In a road-making machine, the combination of two sections each comprising a plurality of longitudinal frame bars and a plurality of scraper bars pivoted thereon; draft connections whereby the sections may be drawn over the road with the scraper bars of either section at any desired angle to the longitudinal bars; a connecting bar for the sections near the forward ends thereof; means for connecting said bar to the adjacent longitudinal bars of the section to vary the spacing between the sections as desired and to permit of the sections swinging relative to one another; flexible means connecting the rear ends of the sections adjustable to permit of the sections spreading apart to any desired distance; and a land roller having its tongue connected to the said connecting bar between the sections. 65 70 75 80

Signed at Forest, Ontario, this 12th day of January 1916, in the presence of the two undersigned witnesses. 85

FRED RAWLINGS.

Witnesses:

S. ADAIR,
W. J. PORTE.