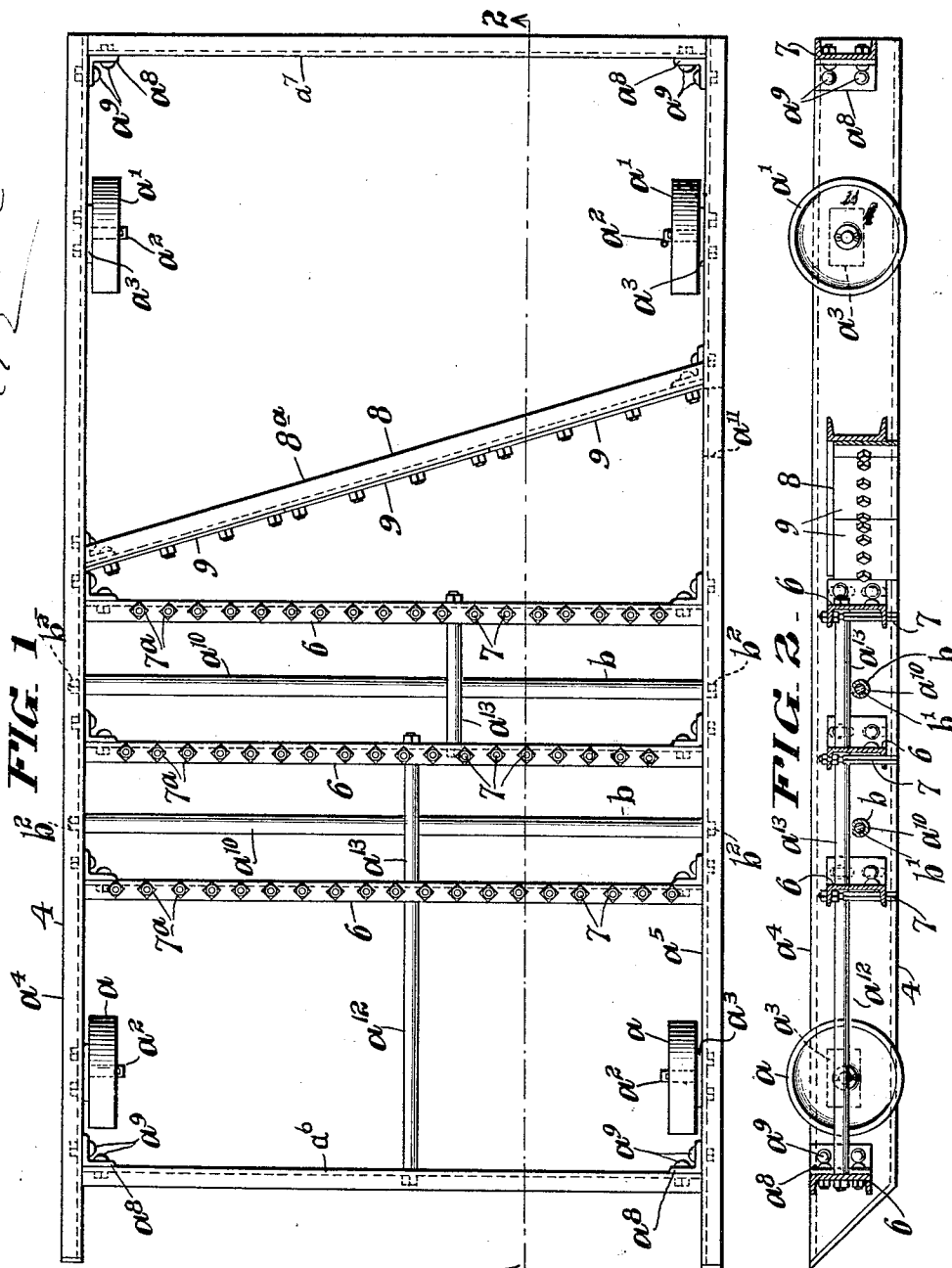


1,055,529.

Patented Mar. 11, 1913.

2 SHEETS—SHEET 1.



WITNESSES

Thomas M. Smith
Helen F. Miller

Refs.—

Finks 378,782 [37-7]

Reynolds 661,294 []

Root 934,630 []

Kaiser 941,929 []

Miller 679,854 [55-96]

Ette 1,027,711 [189-33X]

Blaine 714,661 [55-86]

Baker 648,828 [55-94]

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COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

Cutting spikes in
staggered relation
p. 2, l. 12

1,055,529.

Patented Mar. 11, 1913.

2 SHEETS-SHEET 2.

FIG. 3.

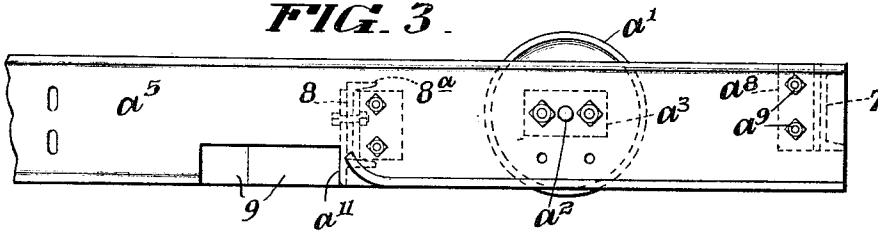


FIG. 4.

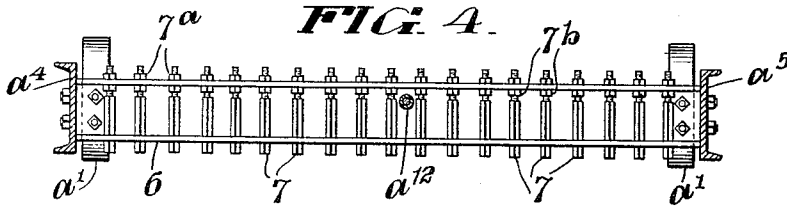


FIG. 5.

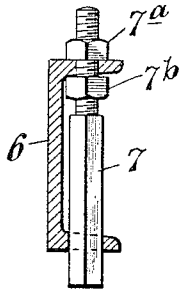


FIG. 6.

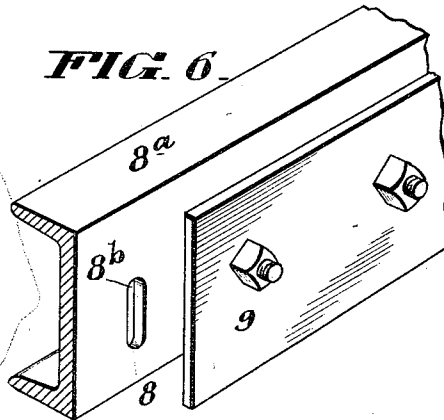
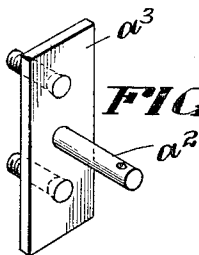


FIG. 7.



WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM T. HEADLEY, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HEADLEY GOOD ROADS COMPANY, OF WILMINGTON, DELAWARE, A CORPORATION OF DELAWARE.

ROAD PLANER AND LEVELER.

1,055,529.

Specification of Letters Patent.

Patented Mar. 11, 1913.

Application filed February 23, 1912. Serial No. 679,377.

To all whom it may concern:

Be it known that I, WILLIAM T. HEADLEY, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Road Planers and Levelers, of which the following is a specification.

My invention has relation to a machine to rant, scrape or plane and level highways or roads, more particularly such as constructively are composed of bituminous material and mineral aggregate in the formation thereof.

As is well-known highways or roads containing asphalt or analogous wearing courses of bituminous composition constantly become uneven arising from various causes, as shifting of foundations, faulty mixture or of excess of bitumen employed in the formation of the road, thus resulting in hills and hollows or the like being formed in the wearing surface of the highway or road. Such arising conditions in wearing surfaces of highways or roads cannot be satisfactorily remedied by rolling, hence hitherto the only feasible manner in which such objectionable conditions arising were corrected, was by refinishing the highway or road.

The principal object of my present invention is to provide a comparatively simple machine, for removing humps and of depositing such in the hollows or the like of the highway or roadway, and in the event of excess of removed matter in the ranting, scraping or planing and leveling operations, of discharging such excess from the side of the machine, along one side of the highway or road.

My invention stated in general terms, consists of a machine to rant or scrape and level particularly highways or roads, constructively composed of bituminous material or matter, constructively arranged and operating in substantially the manner, hereinafter described and claimed.

The nature and scope of my present invention will be more fully understood from the following description taken in connection with the accompanying drawings forming part hereof, in which—

Figure 1, is a top or plan view of a machine, embodying main features of my said invention. Fig. 2, is a longitudinal sectional view on the line 2—2 of Fig. 1. Fig. 3, is a

side elevational view, in broken section of one of the side-frames of the machine, showing the opening in said frame in advance of the leveler device, as well as the arrangement of the latter and also of one of the road-wheels and how supported from the side-frame from a plate bolted thereto, and carrying the axle for said wheel. Fig. 4, is a cross-sectional view through the skeleton frame-work of the machine, showing the arrangement of one series of the ranting or scraping bars in their supporting frame. Fig. 5, is a view in vertical section enlarged, through the ranting or scraping bar supporting frame, showing one of the said bars securely held to place therein. Fig. 6, is a perspective view, enlarged, in broken section, of a section of the channeled supporting frame having oblong slots therein, for adjustably mounting the leveler-blades preferably in a series of sections, in connection therewith; and Fig. 7, is a perspective view, enlarged, of the axle-plate, with its securing bolts for connecting with the longitudinal side-frames of the machine, and on which axles of the said plates are mounted, the road-wheels.

Referring to the drawings, 4 represents a skeleton truck-frame of the machine, as shown, of preferably rectangular arrangement and having on both sides a series of road-wheels a and a^1 . These wheels are mounted on axles a^2 , of oblong plates a^3 , which are bolted to the longitudinal side-frames a^4 and a^5 , of the machine, as clearly shown in Figs. 3 and 7. The front and rear end-frames a^6 and a^7 , of the truck-frame 4, are secured to the longitudinal side-frames a^4 and a^5 , from the inner side, by, preferably, angle-irons a^8 and bolts a^9 , as clearly shown in Figs. 1 and 3.

a^{10} , is a centrally arranged transverse strengthening means, consisting of a tubing b , through which a solid bar b^1 , is inserted and passes through the longitudinal side-frames a^4 and a^5 , and secured to place by nuts b^2 , applied to the threaded ends of the said bars b^1 , as shown in Fig. 1, in which view, two of such strengthening means a^{10} , are shown in connection with the longitudinal side-frames a^4 and a^5 .

6, as shown in Fig. 1, represents three channeled cross-bars adjustably connected with the longitudinal side-frames a^4 and a^5 , as shown in Fig. 2. These cross-bars 6,

have adjustably bolted thereto, a series of vertical ranting or scraping devices 7. Each of these devices preferably consists of a vertical rectangular-shaped bar having a blunt surfaced lower end and a threaded upper end. The said bars arranged at suitable distances apart extend vertically through a channeled support 6, and are tightened to said support by means of nuts 7^a and 7^b, as clearly shown in Figs. 4 and 5. The said devices 7, are preferably arranged as shown in Fig. 1, in staggered relationship so as thereby to effectively remove humps, projections or irregularities in the highway or road, to restore the same again to normal condition. It will be observed by the arrangement of the said devices 7, as fully shown in Fig. 5, in engagement with the horizontally arranged channeled bars 6, that through the upper point of said bars is permitted vertical adjustment of each of such devices and at the lower point of the said bars in which said devices extend therethrough, each of such devices are maintained in true operative relation in the operation of the movable truck over a roadway in the ranting, grooving or ridging thereof, for the described purposes of the said invention. In rear of the series of the said devices 7, in their staggered relationship, as above explained, is arranged at preferably an acute angle to the longitudinal side-frames a^4 and a^5 , a leveling means 8, consisting preferably of a channeled supporting-frame 8^a, provided with oblong slots 8^b, at suitable distances apart. The said frame by means of angle-irons and bolts is secured to the longitudinal side-frames a^4 and a^5 , of the machine. 9, are blades preferably in sections bolted to the said frame 8, through the oblong slots thereof and so as to be adjustably supported thereto, as clearly shown in Figs. 1 and 6. The leveling means 8, when adjusted distributes matter previously acted upon by the said devices 7, into hollows or other irregularities of the highway or road and excess matter carried thereby is drawn toward an opening a^{11} , provided in either the longitudinal side-frame a^4 or a^5 , as clearly shown in Fig. 3, and discharged through the said opening along the side of the highway or road away from the machine impelled by motive power, not shown.

a^{12} , is a brace positioned between the front end cross-bar of the truck-frame and two of the supporting bars 6 of the machine for rendering more stable the said frame-work, and a^{13} , is a brace arranged between certain of the said planer supporting cross-bars and connected therewith for like strengthening purposes of the truck-frame, as shown in Fig. 1.

The truck-frame 4, of the machine, while preferably of skeleton form, because more economical to construct may be constructed more substantially, as a structure, if desired. Moreover, the series of front planer devices 7, of the machine may be arranged to turn, that is, each independently of the others of the series, and in their preferred staggered relationship with one another thereby to plane off, humps or other irregularities by a rotary abrading or cutting action, but the rear leveling blades must be arranged stationary with respect to the said planer devices, because is effected thereby, most economically as well as completely, filling of interstices or other irregularities in the highway or road in the restoring of wearing surfaces of the highway or road to its desired smooth or even original condition.

Having thus described the nature and objects of my invention, what I claim as new and desire to secure by Letters Patent is:—

A movable truck having cross-bars secured thereto and provided with top and bottom flanges, said bars arranged parallel to each other and one of said bars arranged diagonal to the others and secured to said truck-frame, said diagonal bar carrying leveling means, ranting or scraping devices connected with said parallel bars and provided with threaded upper terminals and said devices maintained in proper alining relation to each other by the lower flanges of said bars and in adjustable connection with the upper flanges of said bars by means arranged on both sides of said upper flanges, substantially as described.

In witness whereof, I have hereunto set my signature in the presence of the two subscribing witnesses hereto.

WILLIAM T. HEADLEY.

Witnesses:

THOMAS M. SMITH,
HELEN F. MILLER.