

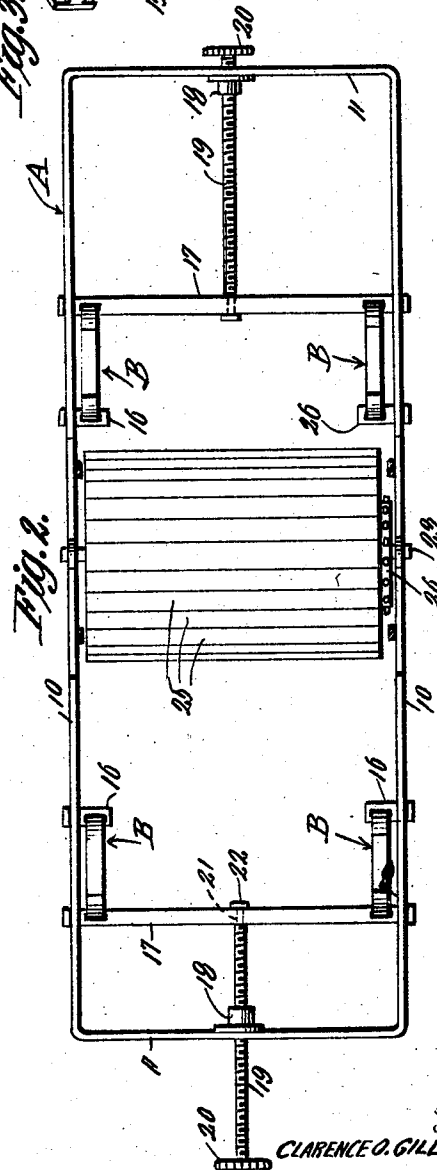
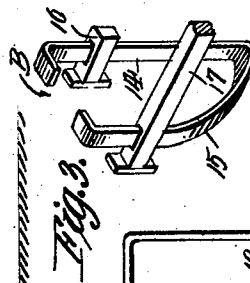
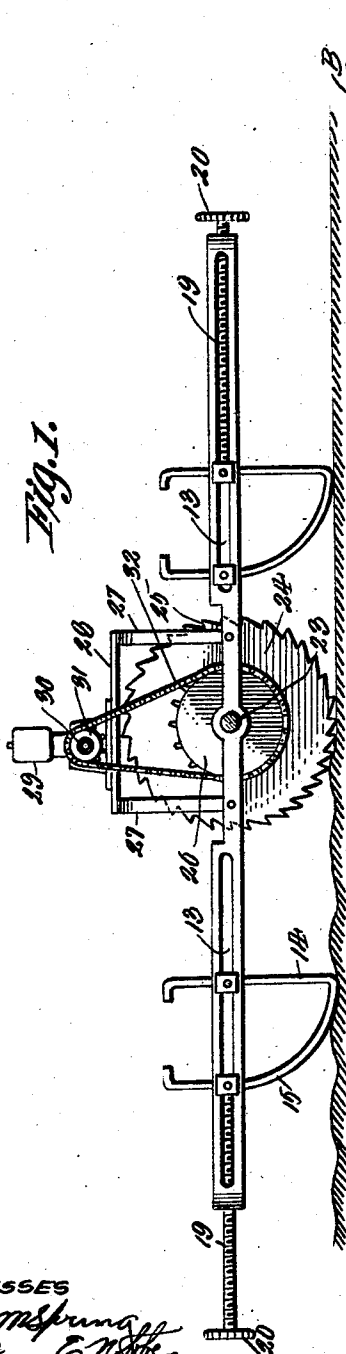
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ROAD PLANING DEVICE

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WITNESSES

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UNITED STATES PATENT OFFICE.

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ROAD-PLANING DEVICE.

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This invention relates to new and useful improvements in surfacing or planing machines and has particular reference to such machines adapted primarily for use in the planing or surfacing of roads.

An important object of the present invention is the provision of such a machine for use in removing the bumps or irregularities on the surface of the road.

Another object of the invention is to provide such a machine having a rotary cutting element whereby the bumps or irregularities in the road will be cut away as the machine is propelled or drawn thereover.

Another object of the invention is to provide such a machine which, while simple in construction, will nevertheless be strong, sturdy and durable and efficient in operation.

In the drawings forming a part of this application and wherein like characters of reference have been employed to designate corresponding parts throughout the several views:—

Figure 1 is a side elevation of a road planing machine constructed in accordance with the present invention.

Figure 2 is a top plan view thereof with the engine platform and engine removed.

Figure 3 is a perspective view of one of the guiding elements.

Reference now being had more particularly to the accompanying drawings wherein for the purpose of illustration has been shown one embodiment of the present invention, it will be seen that there is provided a substantially rectangular frame A, comprising the side members 10 and the ends 11, said side members being provided adjacent each end thereof with the oppositely disposed longitudinal slots 13. The frame A is supported by the four guide members B, each having the rear vertical arm 14 and the curved front arm 15 connected at its lower end with the lower end of the vertical arm 14. This arm is curved in the manner shown in order to facilitate the movements of the guide members over the irregularities in the road. Two of these guide members B are positioned within the frame A at each end thereof, one adjacent each of the sides 10. The rear vertical arms 14 of said members are secured within the small supporting bars 16 slidably mounted in the slots 13, while the arms 15 pass through and are secured within the supporting bar 17, this bar extending between the side members and hav-

ing its opposite ends slidably mounted in the beforementioned opposed slots 13. For the purpose of adjusting the guide members inwardly and outwardly, there is secured to the inner face of each of the ends 11 a bearing block 18 through which is threaded the adjusting screw 19 having the finger piece 20 on the outer end to facilitate the operation thereof. The inner end of the adjusting screw is reduced as at 21 and loosely passes through an opening in the supporting bar 17, a nut or the like 22 being secured to the end of the reduced portion whereby to secure the adjusting screw to the said bar.

Rotatably mounted in the side members 10 is a shaft 23 on which is mounted the elongated circular cutting element 24, formed around its circumference with a plurality of cutting blades 25 arranged similar to the teeth of a rotary saw. Also mounted on the shaft at one side of the cutting element is a sprocket wheel 26. Carried by the side members 10 are the vertical uprights 27 supporting at their upper ends a platform 28 on which is arranged a suitable engine 29. Secured to the drive shaft 30 of the engine is a sprocket wheel 31 and trained over this sprocket and the sprocket 26 on the shaft 23 is a chain 32. Thus, when the engine is started rotary motion will be imparted to the cutting element, through the sprocket wheels 26 and 31 and the chain 32.

In the operation of the machine, it is first attached in any suitable manner to the rear of a tractor or the like after which the engine is started and rotary motion imparted to the cutting element. As the machine is then pulled slowly over the surface of the road, the cutting blades 25 coming into contact with the bumps or irregularities thereof will act to cut them away with the result that the surface of the road will be removed of all of its former irregularities.

When the surface of the road is nearly smooth the guide members B can be moved outwardly and away from the cutting element, but should the road be quite rough, the guide members should be moved inwardly toward the cutting element to prevent the said cutting element from removing too much of the surface of the road. The adjustment of these guide members is accomplished by simply rotating the adjusting screws in the desired direction.

From the above, it will be readily appreciated that there has been provided a ma-

chine for effectively removing the irregularities in the road and while there has been shown one embodiment of the machine, it is to be understood, that various changes
5 in the construction and arrangement thereof may be found desirable and that any such changes may be resorted to without departing from or exceeding the spirit of the invention so long as they fall within the scope
10 of the appended claims.

What is claimed is:—

1. In a machine of the character described, a frame, a rotary cutting element mounted in said frame, guide members supporting the opposite ends of the frame and
15 opposite sides of said cutting elements, and means for adjusting said guide members longitudinally of said frame toward and away from said cutting members.

20 2. In a machine of the character described, a substantially rectangular frame including side and end members, said side members being formed with opposed longitudinally extending slots adjacent each end
25 thereof, a rotary cutting element mounted in said frame, a transverse supporting bar slidably mounted in the opposed slots at each side of the cutting elements, guide members carried by said bars for supporting
30 the opposite ends of the frame, and means carried by the end members of the frame and engaging the said transverse bars for adjusting the guide members toward or away from the cutting elements.

35 3. In a machine of the character described, a substantially rectangular frame including side and end members, said side members being formed with opposed longitudinally extending slots adjacent each
40 end thereof, a rotary cutting element mounted in said frame, a transverse supporting bar slidably mounted in the opposed slots at either side of said cutting elements, guide members carried by said bars for support-

ing the opposite ends of the frame, and longitudinally extending adjusting screws carried by the end members of the frame and secured to the said bars for adjusting the
45 guide members toward or away from the cutting elements.

4. In a machine of the character described, the combination with a substantially rectangular frame, a shaft mounted in said frame, a cutting element mounted
50 on said shaft, a sprocket wheel mounted on said shaft, an engine supported above said cutting elements, a sprocket on the drive shaft of the engine, and a chain frame
55 around the sprocket, of guide members slidably carried by the side members of the frame at opposite sides of the cutting elements and adjusting elements for moving
60 the guide members of said frame toward or away from said cutting elements.

5. In a machine of the character described, the combination with a substantially rectangular frame comprising side
65 and end members, said side members being formed with opposed slots adjacent each end thereof, a transverse shaft mounted in said side members intermediate the ends
70 thereof, a cutting element mounted on said shaft, a sprocket carried by said shaft, and an engine supported above said cutting element, a sprocket mounted on the drive shaft
75 of the engine, and a chain trained around said sprockets, of a transverse supporting bar slidably mounted in the slots in said
80 side members at each side of the cutting element, guide members supported by the said bars, and adjusting screws passing through the end members of the frame and secured to the bar for moving the guide
85 members toward or away from the cutting elements.

In testimony whereof I affix my signature.

CLARENCE O. GILLESPIE.