April 26, 1932. C. M. SPEAR ET AL 1,855,368

RESURFACING MACHINE

Filed Jan. 8, 1931 2 Sheets-Sheet 1

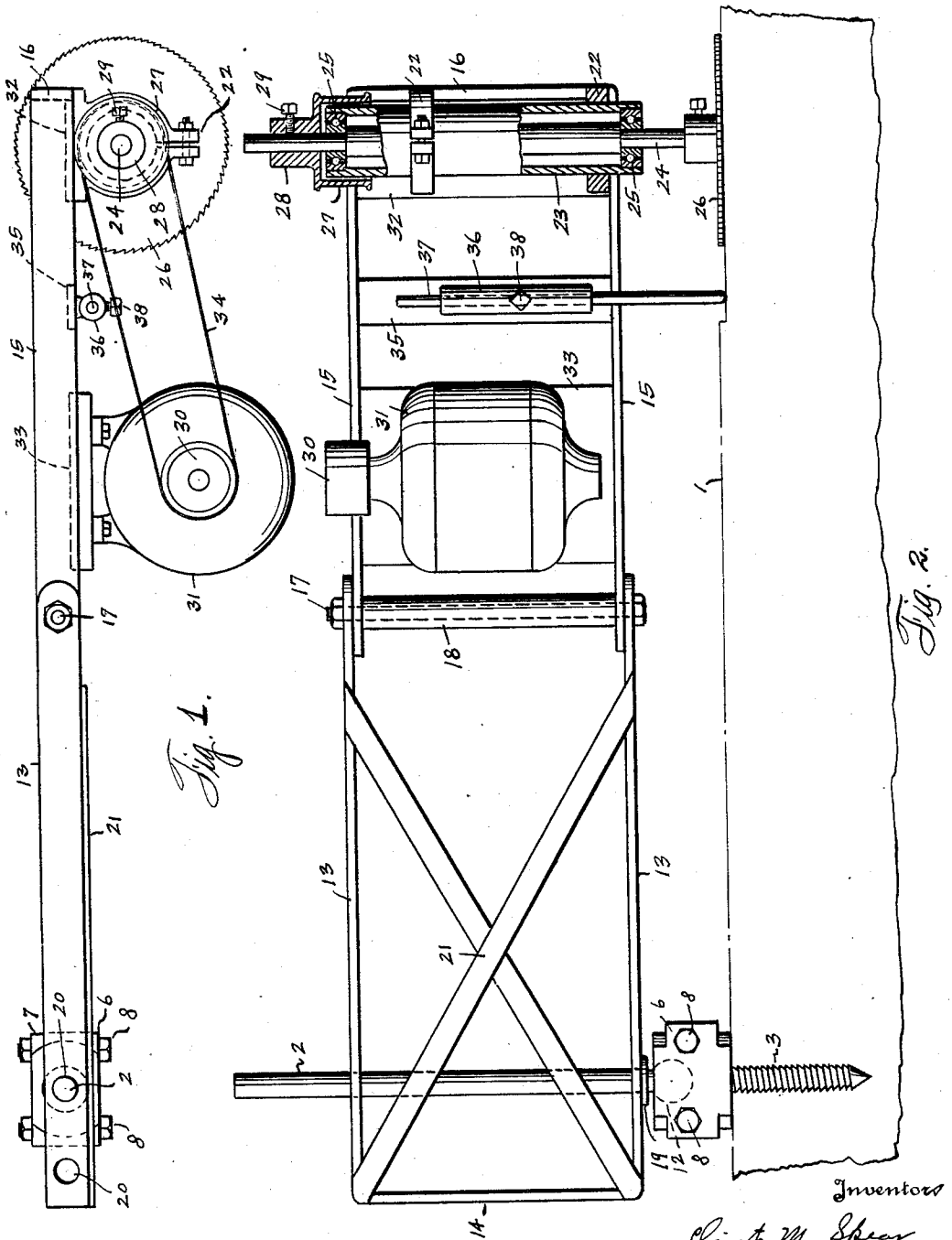


Fig. 1.

Fig. 2.

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RESURFACING MACHINE

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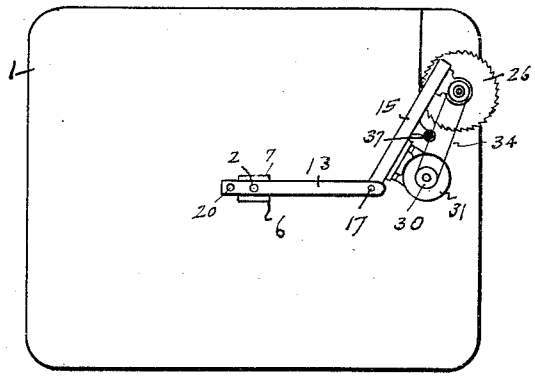


Fig. 3.

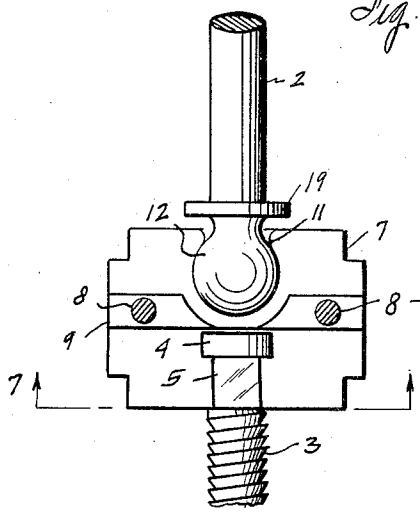


Fig. 4.

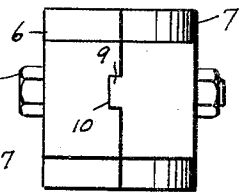


Fig. 5.

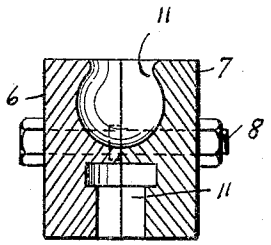


Fig. 6.

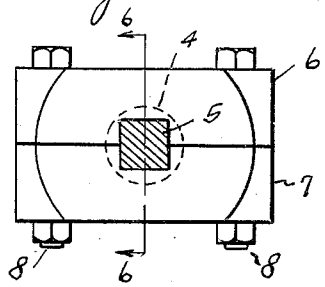


Fig. 7.

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UNITED STATES PATENT OFFICE

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RESURFACING MACHINE

Application filed January 8, 1931. Serial No. 507,441.

This invention relates to a resurfacing machine.

One object of the invention is to provide a resurfacing machine of the character described specially designed for such purposes as that of resurfacing, or redressing, butcher blocks with a smooth upper surface after such upper surface has become uneven by reason of use.

Another object of the invention is to provide a resurfacing machine of the character described equipped with novel means for mounting the same on the work; novel means for controlling the feed of the resurfacing saw; and novel means for mounting and driving said saw.

With the above and other objects in view this invention has particular relation to certain novel features of construction, operation and arrangement of parts an example of which is given in this specification and illustrated in the accompanying drawings, wherein:—

Figure 1 shows a plan view of the machine.

Figure 2 shows a side view thereof, partly in section.

Figure 3 shows a plan view of the machine mounted on the work.

Figure 4 shows a fragmentary side view of the supporting post and anchor therefor, one of the clamp jaws of said anchor being removed.

Figure 5 shows an end view of the supporting post anchor.

Figure 6 shows a transverse vertical sectional view thereof, taken on the line 6—6 of Figure 7, and

Figure 7 shows a horizontal sectional view of said anchor taken on the line 7—7 of Figure 4.

Referring now more particularly to the drawings wherein like numerals of reference designate similar parts in each of the figures the numeral 1 designates the work to be resurfaced for illustration, a meat block being shown. The machine is supported upon a supporting post 2 which is anchored to the top of the work preferably at the center thereof, by means of a lag screw 3, which is screwed into the block. The upper end of this lag screw has a circular head 4 and beneath said head has a polygonal section 5. There is a post anchor composed of approximately similar complemental jaws 6, 7. These jaws are held together by suitable clamp bolts 8, 8, and are provided one with a transverse tenon 9 and the other with a transverse mortise 10 to receive said tenon to hold said jaws in proper alignment. The underside of the anchor has a socket 11 shaped to snugly receive the upper end of the lag screw 3 whereby the anchor is securely held against detachment and against turning relative to said lag screw and resting closely against the upper surface of the block 1. The upper side of the anchor has a socket bearing 11 to receive the ball bearing 12 on the lower end of the supporting post. In order to adjust the post 2 into a precise vertical position the bolts 8 may be loosened and the adjustment accomplished and said bolts then tightened up to secure the post 2 in the selected position.

There is a framework comprising two U-shaped frames. One frame has the upper and lower side member 13, 13 connected at their outer ends by the cross bar 14 and the other frame has the upper and lower side members 15, 15 connected at their outer ends by the cross bar 16. The inner or adjacent ends of these frames overlap and a bearing rod 17 is fitted through bearings in said overlapping ends having a head on its lower end, and a nut on its upper end and a spacing sleeve 18 is located between said overlapping ends and holds them spaced properly apart and the bearing rod 17 extends through said sleeve. The inner or adjacent ends of the two frames are thus hinged together. The post extends through vertically aligned bearings in the side members 13 and has an annular bearing plate 19 upon which the lower side member 13 rides. A plurality of pairs of bearings as 20 may be provided in said side members 13 to provide for the adjustment of the framework on the supporting post. The inner frame which is mounted on the post 2 may be provided with the cross reinforcing bars 21 suitably secured thereto as shown if found necessary.

Secured to the outer end of the outer

frame, by means of suitable clamps as 22, there is a vertical tubular housing 23 having the axial shaft 24 mounted therein to run on suitable anti-friction bearings as 25. Fixed to the lower end of this shaft there is a circular saw 26 of any selected type. Fixed to the other end of the shaft 24 there is a belt pulley 27 which has an extended hub 28. This pulley is removably secured to its shaft by means of a set screw 29 and may be reversed on its shaft if necessary to align its pulley with the driving pulley 30 fixed on the shaft of the motor 31. The clamps 22 and the motor 31 are secured to the respective cross plates 32, 33 which are secured to the upper and lower side members 15 and which serve also to brace the outer frame. A belt 34 operates over the pulleys 30, 27, and transmits rotation from the former to the latter.

There is also a cross brace 35 connecting the side members 15, 15 and on this cross brace there is a vertical, elongated, bearing 36 in which there is located a feed rod 37 which may be held at any desired point of adjustment by the set screw 38.

In operation the machine is mounted on the work as shown in Figure 3 and the framework is adjusted to bring the saw to the outer margin of the work and the saw is then swung entirely around the work to smooth off or resurface the outer margin thereof. While this is being accomplished the feed rod 37 will be adjusted up out of contact with the work. Thereafter the said rod 37 is adjusted downwardly until its lower end rests on the smoothed surface and there secured and the work is then continued with the feed rod moving in advance of the saw and traveling along the previously smoothed surface so that the saw will be held at a uniform elevation relative to the work during the subsequent smoothing operation. The frame work is swung around the central post by hand so as to make additional cuts with each revolution until the surface is smoothed off from the outer margin inwardly to the anchor. The machine may be then lifted off of the supporting post and the anchor removed and the work completed by hand.

The drawings and description disclose what is now considered to be a preferred form of the invention by way of illustration only, while the broad principle of the invention will be defined by the appended claims.

What we claim is:

1. A resurfacing machine including an anchor having complemental jaws, means for clamping said jaws together, means attached to the work and clamped between said jaws for securing the anchor to the work, a post whose lower end has a universal connection with, and is clamped between, said jaws, a framework on said post mounted to swing thereon about an approximately vertical axis, a saw on said framework mounted to rotate on an axis approximately parallel with that of the framework.

2. A resurfacing machine including an anchor having complemental jaws, means for clamping said jaws together, means attached to the work and clamped between said jaws for securing the anchor to the work, a post whose lower end has a universal connection with, and is clamped between, said jaws, a framework on said post mounted to swing thereon about an approximately vertical axis, a saw on said framework mounted to rotate on an axis approximately parallel with that of the framework, said framework comprising an inner frame mounted on the post and an outer frame on the inner frame mounted to swing independently of the inner frame, on an axis approximately parallel with said post, said saw being carried by the outer frame.

3. A resurfacing machine including an anchor having complemental jaws, means for clamping said jaws together, means attached to the work and clamped between said jaws for securing the anchor to the work, a post whose lower end has a universal connection with, and is clamped between, said jaws, a framework on said post mounted to swing thereon about an approximately vertical axis, a saw on said framework mounted to rotate on an axis approximately parallel with that of the framework, said framework comprising an inner frame mounted on the post and an outer frame on the inner frame mounted to swing independently of the inner frame, on an axis approximately parallel with said post, said saw being carried by the outer frame, and an adjustable feed rod on the outer frame adapted to ride on the surfaced work.

In testimony whereof we have signed our names to this specification.

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