A. P. MEAKER AND I. F. BAKER.

SURFACING MACHINE.

APPLICATION FILED AUG. 4, 1919.

1,378,259.

Patented May 17, 1921.

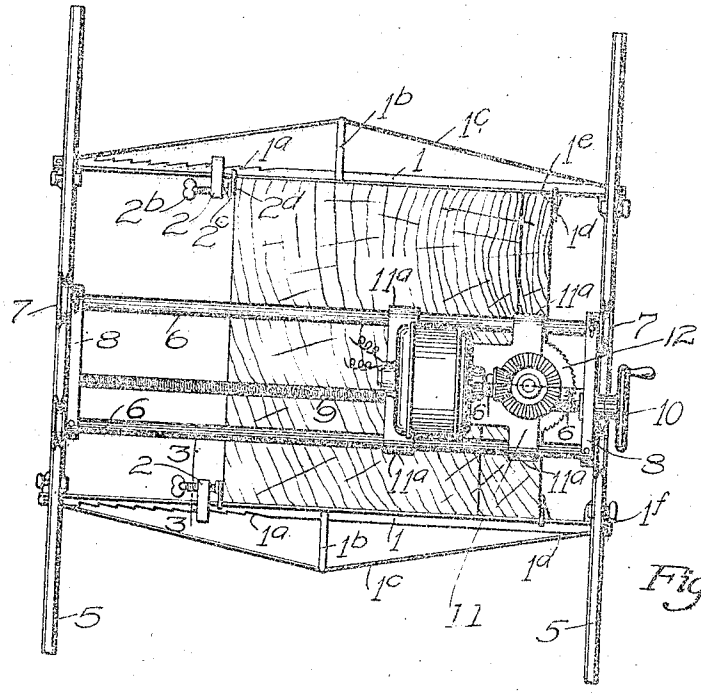


Fig. 1.

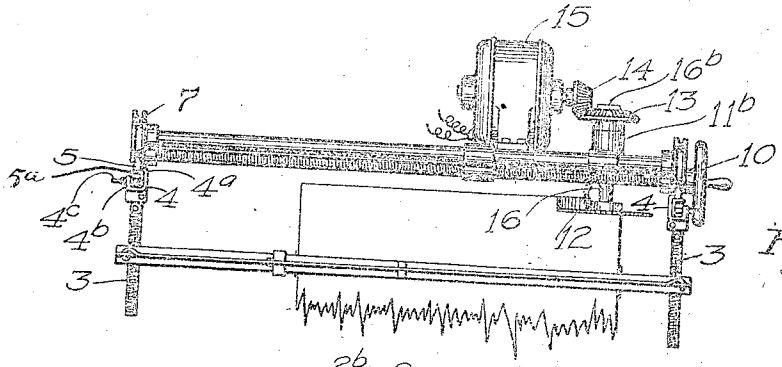


Fig. 2.

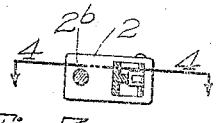


Fig. 3.

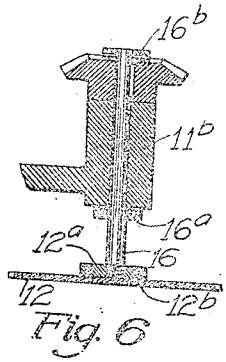


Fig. 6

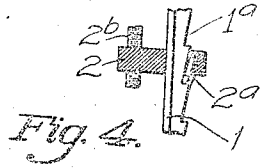


Fig. 4.

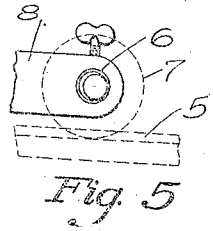


Fig. 5

INVENTORS

ALLEN P. MEAKER

IRA F. BAKER

BY A. B. Bowman

ATTORNEY

UNITED STATES PATENT OFFICE.

ALLEN P. MEAKER AND IRA F. BAKER, OF SAN DIEGO, CALIFORNIA.

SURFACING-MACHINE.

1,378,259. Specification of Letters Patent. Patented May 17, 1921.

Application filed August 4, 1919. Serial No. 315,066.

To all whom it may concern:

Be it known that we, ALLEN P. MEAKER and IRA F. BAKER, citizens of the United States, residing at San Diego, in the county of San Diego and State of California, have invented certain new and useful Improvements in Surfacing-Machines, of which the following is a specification.

Our invention relates to a machine for surfacing blocks such as meat chopping blocks and the like and the objects of our invention are: first, to provide a machine of this class which may be readily disassembled and is portable and may be easily moved from place to place by one person; second, to provide a machine of this class by the use of which a block may be readily surfaced so that it is level on the top without injuring the block; third, to provide a surfacing machine of this class which is supported by being clamped to the sides of the block; fourth, to provide a surfacing machine of this class which is adjustable throughout thus making it applicable to different and various sized blocks; fifth, to provide a surfacing machine of this class in which an ordinary circular saw may be used and in which no special cutter is required and sixth, to provide a surfacing machine of this class which is very simple and economical of construction, durable, easy to operate, easy to install and which will not readily deteriorate or get out of order.

With these and other objects in view as will appear hereinafter, our invention consists of certain novel features of construction, combination and arrangement of parts and portions as will be hereinafter described in detail and particularly set forth in the appended claims, reference being had to the accompanying drawings and to the characters of reference thereon which form a part of this application, in which:

Figure 1 is a plan view of our device shown in position on a block and in position for surfacing the same; Fig. 2 is a side elevational view thereof; Fig. 3 is a sectional view through 3—3 of Fig. 1 on an enlarged scale; Fig. 4 is a sectional view through 4—4 of Fig. 3; Fig. 5 is an end view of one of the rollers positioned on the shaft in an eccentric position shown on an enlarged scale and Fig. 6 is a sectional view of the saw and its shaft and supporting mechanism through 6—6 of Fig. 1 on an enlarged scale.

Similar characters of reference refer to similar parts and portions throughout the several views of the drawings.

The supports 1, clamping members 2, track supports 3, clamps 4, track members 5, tubes 6, rollers 7, supports 8, feed screw 9, hand wheel 10, support 11. cutter 12, gear 13, pinion 14, motor 15, and shaft 16 constitute the principal parts and portions of our surfacing machine.

The supports 1 are preferably T members. They are provided in one end with a plurality of ratchet notches 1^a and in the middle with a strut member 1^b over which is provided a member 1^c and it is secured to the opposite ends of the support 1 forming a truss for strengthening said support. Secured to said supports near their one ends are lugs 1^d which are provided with projections 1^e on their inner surfaces which are adapted to enter the side of the block with the lugs 1^b against the same for holding them in position. Shiftably mounted on these supports 1 near their opposite ends are clamp members 2 which are held in certain relative position to said support by means of ratchet pawls 2^a shown best in Fig. 4 pivotally mounted in said clamp member and adapted to engage the notches 1^a on the supports 1. These clamping members 2 are provided with wing bolts 2^b which extend through said clamp members and their inner ends are adapted to engage a slidable lug member 2^c which is also provided with projections 2^d adapted to engage the side of the block. Mounted at each end of the supports 1 is a right angled lug 1^f which is provided with an internally threaded hole adapted to receive the threaded supports 3 and swiveled on the upper ends of these supports 3 are the clamping members 4 which are shaped as shown best in Figs. 1 and 2 of the drawings which is adapted to clamp and support the track member 5. It is provided with a hook portion 4^a which is adapted to engage the upper surface of the L member 5^a upon which the track 5 is secured and said clamping member is provided with an upwardly extending member 4^b which is provided with a wing screw 4^c which is adapted to engage the inside of the L member for securing the track to the clamp members 4.

It will be noted that the upper edge of the track 5 is beveled and mounted on these track members is a carriage, supported on

the rollers 7 which are provided with beveled grooves conforming to the beveled edges of the track members 5. These rollers 7 are mounted on axles which are secured in the ends of the tubes 6, the axles in one of said tubes being set eccentrically in said tube as shown best in Fig. 5 to provide for adjustment of the tube relatively to the periphery of the roller to provide for adjustably raising the front edge of the saw, to give it relief and to prevent its gouging in the block. These tubes 6 are rigidly secured together at their opposite ends by means of the supports 8 which are secured thereto, and shiftably mounted on these tubes is the support 11 which is provided with lugs 11^a which are shiftably mounted on the tubes 6 and with a plate portion to which the motor 15 is secured. It is provided with an upwardly extending bearing portion 11^b which serves as a journal for the shaft 16. Mounted on the motor shaft is a pinion 14 which engages a gear 13 secured to the upper end of the shaft 16, and mounted on said shaft 16 at the lower side of the bearing portion 11^b is a collar 16^a and on the top of the shaft is a collar 16^b which prevents said shaft from raising and lowering in said journal. Secured on the lower end of the shaft 16 is an annular support 12^a to which is secured the circular saw or cutter 12 by means of screws 12^b shown best in Fig. 6. It will be noted that the weight of the carriage and motor resting on the track holds the saw in certain relative position to the block and that the tracks 5 are positioned relatively to the block before starting the surfacing operation. Swiveled in the members 8 is a feed screw member 9 which is provided with a hand wheel 10 on one outer end adapted to facilitate the turning of the same.

The operation of the surfacing machine is as follows: The block is leveled up, the supports are secured to the sides as shown best in Fig. 1 of the drawings and the bolts 3 are turned positioning the top of the tracks 5 as desired relatively to the top of the blocks, the support 11 is turned to near one side by means of the hand wheel 10 so that the cutter 12 may engage one side of the block, the tracks 5 being leveled so that they are positioned relatively to the block, then the motor is started and the rollers 7 moved along the tracks 5, the saw cutting a groove in the edge of the block to the opposite side after which the portion sawed under by the block is removed by a hatchet or other sharp tool, the carriage is moved back to the opposite side, the hand wheel turned to cut another groove on the same level and the carriage again pushed across the block, cutting another groove which is continued until the entire top surface of the block is surfaced.

Though we have shown and described a particular construction, combination and arrangement of parts and portions we do not wish to be limited to this particular construction, combination and arrangement but desire to include in the purview of our invention the construction, combination and arrangement substantially as set forth in the appended claims.

Having thus described our invention what we claim as new and desire to secure by Letters Patent, is:

1. A device of the class described, including a pair of truss members, each provided with a block engaging member near one end and with a clamp screw spaced therefrom and adjustable thereon for clamping said truss members to said block, a pair of track members disposed at right angles thereto and adjustably supported thereon provided with beveled upper edges, a carriage provided with flanged wheels conforming to the upper edges of said track members mounted on said tracks and movable thereon, a support shiftable longitudinally on said carriage, a vertical shaft journaled in said support, a cutter secured to the lower end of said shaft and means mounted on said support connecting with said shaft for revolving said shaft.

2. A device of the class described, including a pair of truss members, each provided with a block engaging member near one end and with a clamp screw spaced therefrom and adjustable thereon for clamping said truss members to said block, a pair of track members disposed at right angles thereto and adjustably supported thereon provided with beveled upper edges, a carriage provided with flanged wheels conforming to the upper edges of said track members mounted on said tracks and movable thereon, a support shiftable longitudinally on said carriage, a vertical shaft journaled in said support, a cutter secured to the lower end of said shaft, means mounted on said support connecting with said shaft for revolving said shaft and means in connection with said carriage for adjusting the height of one side of the carriage relatively to its supporting wheels.

In testimony whereof, we have hereunto set our hands, at San Diego, California, this 26 day of July, 1919.

ALLEN P. MEAKER.
IRA F. BAKER.