

C. L. MATTISON.
 PORTABLE VENEER TRIMMER,
 APPLICATION FILED NOV. 2, 1914.

1,216,340.

Patented Feb. 20, 1917.
 2 SHEETS—SHEET 1.

Fig. 1.

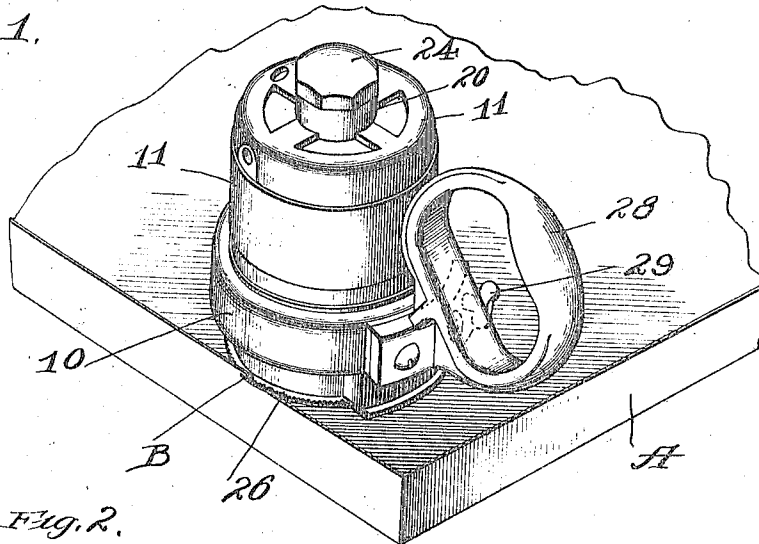


Fig. 2.

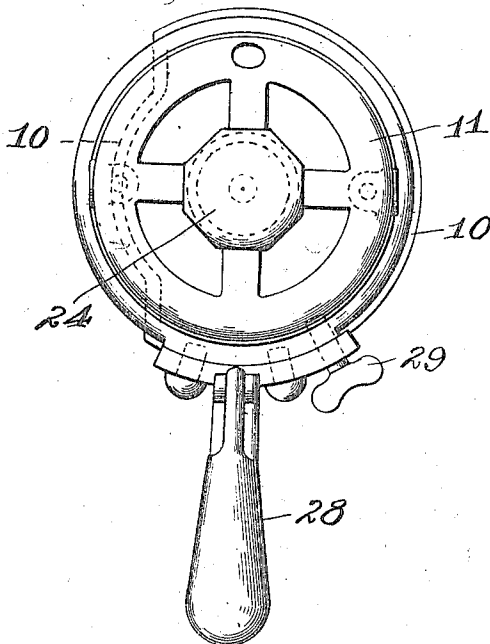
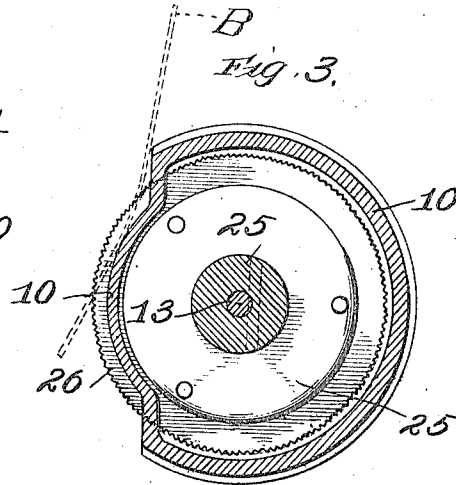


Fig. 3.



Witnesses:

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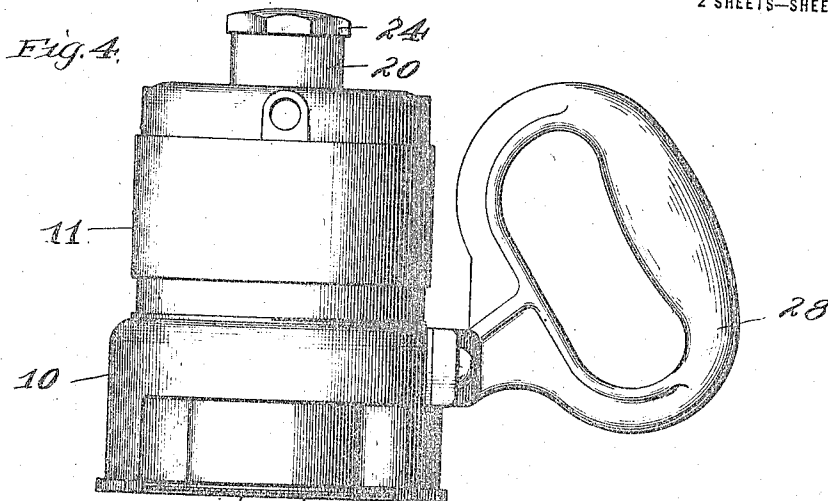
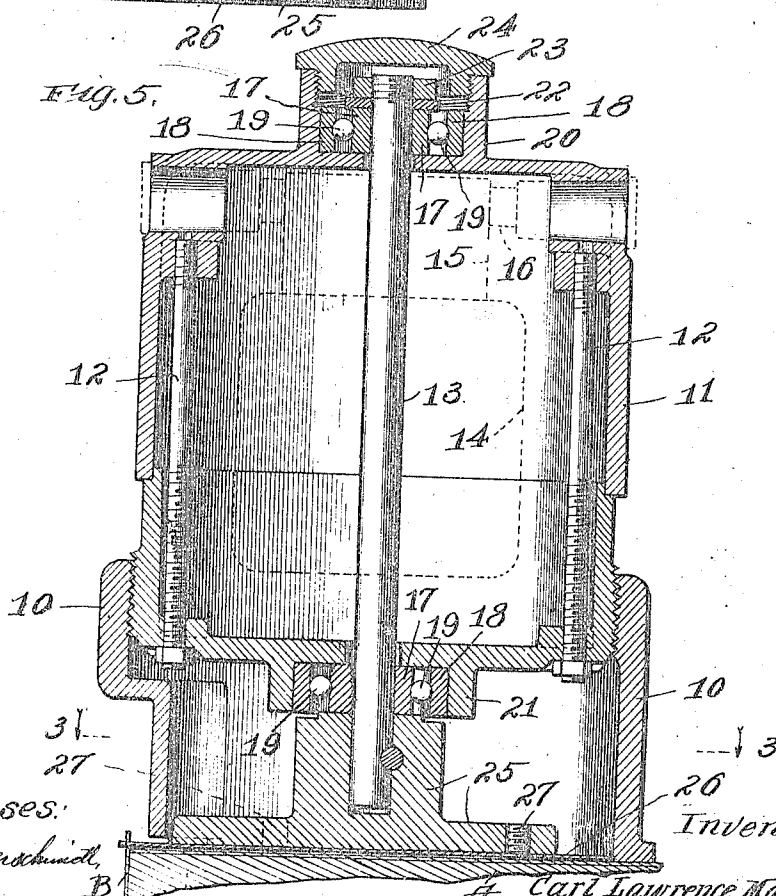
By Miller & Chindahl

Attys

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UNITED STATES PATENT OFFICE.

CARL LAWRENCE MATTISON, OF BELOIT, WISCONSIN, ASSIGNOR TO C. MATTISON MACHINE WORKS, OF BELOIT, WISCONSIN, A CORPORATION OF WISCONSIN.

PORTABLE VENEER-TRIMMER.

1,216,340.

Specification of Letters Patent.

Patented Feb. 20, 1917.

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To all whom it may concern:

Be it known that I, CARL LAWRENCE MATTISON, a citizen of the United States, residing at Beloit, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Portable Veneer-Trimmers, of which the following is a specification.

In the manufacture of desks, tables and other articles of furniture, it is common to secure a strip of veneer to the vertical edge of the top piece so as present a more pleasing grain of the wood. The strip of veneer used for this purpose is wider than the thickness of the top piece so that the upper edge of the veneer projects above the upper face of the top and must be removed after the glue has set. Heretofore this projecting upper edge has been removed in various ways by hand, probably the most common way being to cut off the edge with a draw-knife. Obviously this operation is a tedious and slow one and furthermore great care must be taken to prevent splitting of the grain of the veneer down below the face of the table during the cutting operation.

The object of my invention is to produce a simple and effective machine tool for trimming off this veneer edge quickly and evenly and without any liability of splitting the veneer.

The invention also refers to certain details of construction which will be fully described hereinafter.

In the accompanying drawings, Figure 1 is a perspective view illustrating in use a veneer trimmer embodying the features of my invention, the wires for supplying electric power to the motor being omitted. Fig. 2 is a top plan view of the machine. Fig. 3 is a horizontal section through the lower portion of the machine, substantially in the plane of line 3—3 of Fig. 5. Fig. 4 is a side elevation, and Fig. 5 is an enlarged vertical central section through the machine.

In the preferred embodiment illustrated in the drawings, the machine comprises a housing consisting of a lower or base section 10 constituting a support or gage, and an upper section 11, the latter constituting the casing of an electric motor, and being threaded into the base section 10.

The motor casing 11 may consist of two sections suitably secured together by bolts 12. The armature shaft is indicated at 13,

the armature, commutator and brushes being indicated in dotted lines by numerals 14, 15 and 16, respectively. These motor parts may be of any common or preferred construction, and for the sake of clearness the field has been entirely omitted from the drawings.

The shaft 13 is supported in ball bearings which, in the preferred form herein shown, comprise inner and outer rings 17 and 18 between which are anti-friction balls 19. The inner rings are fixed upon the shaft 13, while the outer rings are fixedly seated in hollow bosses 20 and 21 on the upper and lower ends of the casing 11. On the upper end of the shaft 13 is fixed a washer 22 and nut 23 abutting against the upper ball bearing. The open end of the upper boss 20 is closed by a suitable plug 24 to exclude dust and other foreign matter.

Upon the lower end of the armature shaft 13 beneath the lower ball bearing, is rigidly fixed a head 25, and to the underside of this head is secured a circular saw 26. Preferably, the saw is secured to the head by a suitable number of countersunk screws 27, so that the saw may be easily removed for sharpening when desired. The upper end of the head 25 abuts against the lower ball bearing, so that said head and the nut and washer 22 and 23 effectively prevent endwise movement of the armature shaft, the saw thus being held against vibration.

The machine is arranged to be carried from place to place by a suitable handle 28 which is secured in this instance to the base section 10. A set screw 29 (Fig. 2) threaded in the base section is arranged to lock the sections 10 and 11 against relative rotation when tightened up. Preferably, a block of fiber or other suitable material (not shown) is placed at the inner end of the set screw to bear against the thread on the casing 11, so as to prevent injury to the latter.

The screw-thread connection between the base section 10 and the motor casing 11 is provided for the purpose of obtaining an adjustment between the lower edge of the base and the face of the saw. Such adjustment may be necessary either in original assembly or when the saw is replaced after sharpening or for other purposes. To make the adjustment the set screw 29 is loosened, the sections 10 and 11 are given a relatively rotary movement to the desired extent, and

the set screw is again tightened to lock the sections together.

The base 10 is reduced in size at the left-hand side of the handle 28, as seen most clearly in Fig. 3, being of less diameter at this place so that the edge of the saw 26 projects beyond the base, the latter having its lower edge cut away for this purpose. The base fits relatively close to the edge of the saw, and also close to the upper face thereof, so as to prevent splinters or the like from being carried into the interior of the casing by the saw. The wall of this recess or reduced portion may be held in contact with the veneer edge so that, if desired, the veneer edge may serve as a guide for the machine in moving along the work. See Fig. 3.

In use, the machine is placed upon the upper face of the table top A or other article of furniture, the weight of the machine resting upon the lower edge of the base 10. This lower edge provides a large bearing surface for the machine, which extends continuously around the larger portion of the base, so that a steady rest for the machine will be supplied, even if the piece of work on which the machine is resting be a narrow or irregular strip or the like, instead of a broad table top. The machine is moved to carry the projecting edge of the saw against the veneer B and is pushed along the face of the table entirely around the perimeter thereof. At the corners of the table the sawed off veneer edge will bow outwardly sufficiently to permit the machine to be moved up into the corner so that the veneer at the corners may be trimmed as effectively as at the sides of the table.

It will be seen that this machine is very effective for veneer trimming, since it does its work quickly, accurately and evenly and has no tendency to split the veneer. Furthermore, since it is only necessary to set the machine on the table and push it along, the operation does not require an experienced workman, but may be performed by cheap labor.

While I have herein shown the preferred embodiment of my invention, I recognize that various modifications may be resorted to without departing from the spirit and scope thereof, and I therefore do not limit myself to the details of construction shown in the drawings, except as defined by the terms of the appended claims.

I claim as my invention:

1. A portable veneer trimming tool comprising a support or gage adapted to rest against the face of the work to stabilize the tool, a saw carried by said support in position to lie approximately parallel with and very close to the said face of the work when

the support or gage is in engagement therewith, and means for driving said saw.

2. A device of the character described comprising a lower or base section constituting a support or gage, an upper section adjustably mounted on the lower section and constituting the casing of a motor, the motor having a drive shaft, and a circular saw rigidly fixed to said shaft and adapted to lie close to the plane of the lower edge of said support or gage.

3. In a tool for trimming off the projecting edge of veneer, a hollow base having an arcuate lower edge arranged to engage the face of an article of furniture above which the veneer edge projects, a motor supported by said base, and a circular rotary saw inclosed by said base and operatively connected to said motor, the saw occupying a position parallel with and close to the said face of the article of furniture when said base is in engagement therewith.

4. A device of the character described comprising a motor, a hollow base threaded upon said motor and having a cut away portion, and a rotary circular saw operatively connected to the motor and inclosed by said base and adapted to project through said cut away portion, the saw occupying a plane parallel with and close to the face of an object with which said base is in engagement.

5. A device of the character described comprising a hollow base having an arcuate lower edge adapted to rest upon the work and having a cut away portion, a motor comprising a casing threaded into said base and comprising a shaft, and a rotary circular saw rigidly fixed on the lower end of said shaft and projecting through the cut away portion of said base, said saw lying in approximately the same plane as the said arcuate lower edge of the base.

6. In a tool for trimming off the projecting edge of veneer, a hollow base having a lower edge arranged to bear against the work, driving means on the base, and a rotary circular cutting element within the base operatively connected to said driving means and lying in a plane close to said lower edge of the base, the latter having a reduced portion at one side thereof and having its lower edge below said reduced portion cut away to expose an arc of the cutting element, the edge of the cut-away portion lying close to the periphery and the upper face of the cutting element.

In testimony whereof, I hereunto set my hand in the presence of two witnesses.

CARL LAWRENCE MATTISON.

In the presence of—

J. W. DOWNING,
E. M. IRISH.