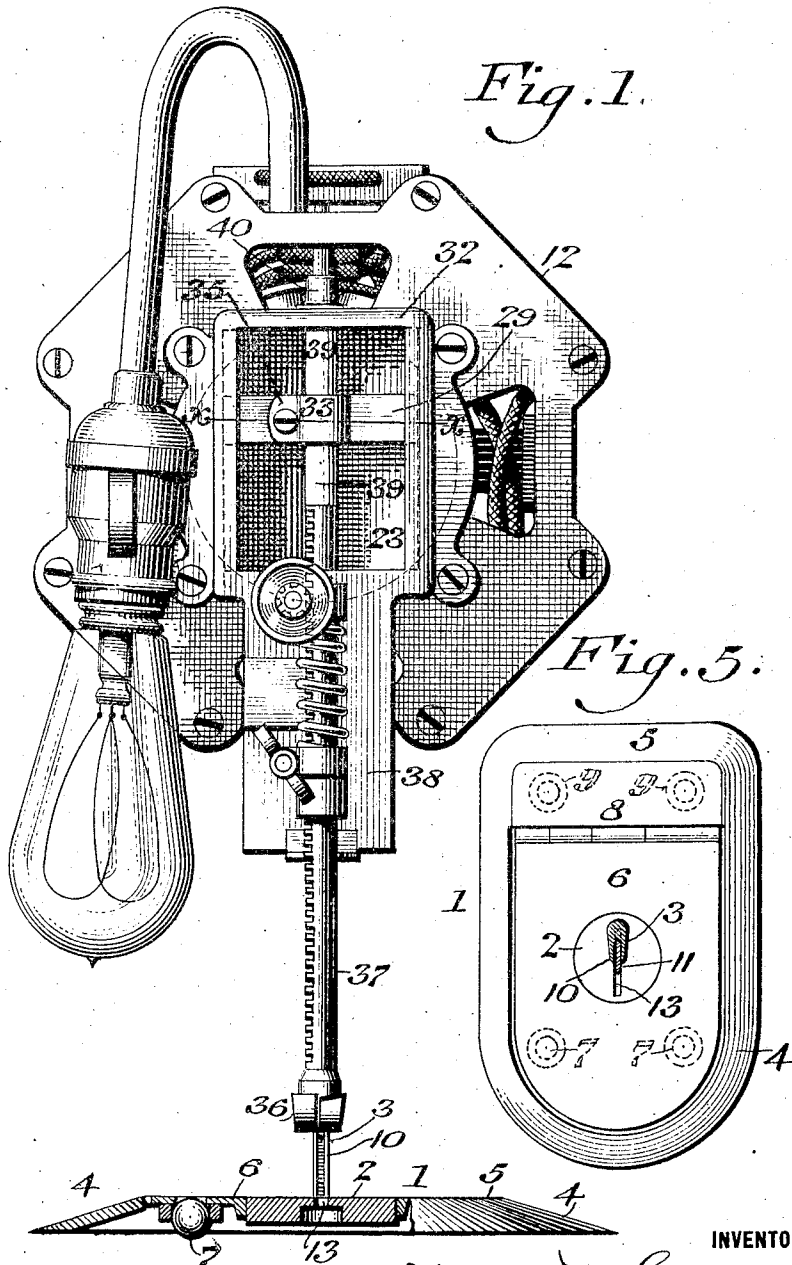


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APPLICATION FILED OCT. 24, 1911.

1,061,982.

Patented May 20, 1913.

2 SHEETS-SHEET 1.



WITNESSES

O. F. Nagle.
L. Rouville.

BY

INVENTOR

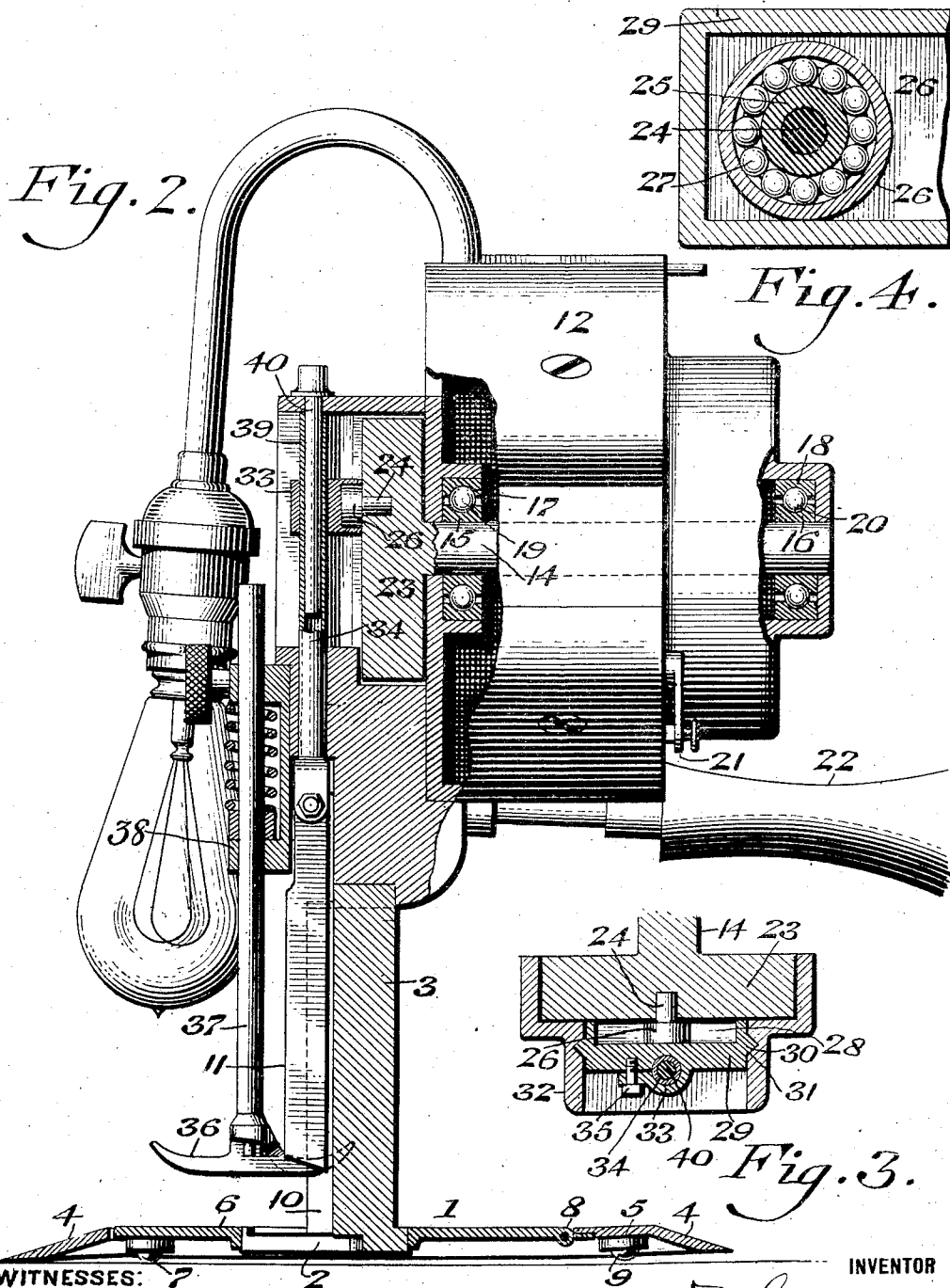
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UNITED STATES PATENT OFFICE.

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CLOTH OR FABRIC CUTTER.

1,061,982.

Specification of Letters Patent.

Patented May 20, 1913.

Application filed October 24, 1911. Serial No. 652,507.

To all whom it may concern:

Be it known that I, MORRIS Z. CLAVANS, a citizen of the United States, residing in the city and county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Cloth or Fabric Cutters, of which the following is a specification.

My invention relates to a cloth or fabric cutter, and consists of means whereby the edge of the base plate may be brought down closely to the table and underneath the material to be cut.

It further consists of other novel features of construction, all as will be hereinafter fully set forth.

The invention is satisfactorily illustrated in the accompanying drawing, but the important instrumentalities thereof may be varied, and so it is to be understood that the invention is not limited to the specific arrangement and organization shown and described.

Figure 1 represents a front elevation of a cloth-cutter embodying my invention. Fig. 2 represents a side elevation of the cutter, partly in section. Fig. 3 represents a horizontal sectional detail view on the line $x-x$ in Fig. 1. Fig. 4 represents a vertical sectional detail view on an enlarged scale of a part of the cross-head and the anti-friction device for the wrist-pin. Fig. 5 represents a top plan view on a diminished scale of the base-plate.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, the numeral 1 indicates the base-plate in which is secured a throat-plate 2, from which the standard, 3, extends. The edges, 4, of the base-plate are beveled so as to permit of it being pushed beneath the pile of cloth or whatever fabric is to be cut. The base-plate consists of two pieces, a beveled frame-portion, 5, and a central portion 6. Ball-casters, 7, are provided beneath the forward end of the central portion, and the rear edge of said portion is hinged at 8, to the frame-portion which is supported to the rear of said hinge upon ball-casters, 9. The base-plate may thus be guided to travel in any direction upon the ball-casters and its front edge may drop to contact with the surface of the table upon which the pile of cloth or fabric to be

cut rests, so as to enable the beveled edge to engage beneath very thin fabric.

The standard has the usual guide 10, in which the knife, 11, is guided, and an electric motor 12 is supported upon the upper end of the standard. The throat-plate has the usual slot, 13, for the passage of the lower end of the knife. The shaft, 14, of the motor has peripherally grooved collars 15 and 16, secured upon it, at its forward and rear ends, and said collars are journaled in ball-races, 17 and 18, in the motor-casing, having balls 19 and 20. A controlling-switch 21 is supported upon the motor to be within convenient reach of a finger or thumb of the hand of the operator grasping the handle, 22, which projects rearward from the standard and by which the cutter is guided. A disk or fly-wheel, 23, is secured upon the forward end of the motor-shaft, and said disk has a wrist-pin, 24, in its outer face, to which pin a peripherally grooved collar, 25, is secured. An internally grooved, annular disk 26 surrounds said collar and forms with the latter a race for anti-friction balls 27. The wrist-pin, collar and disk project into a transverse slot or recess, 28, in a yoke or cross-head 29, having V-shaped tongues or ribs, 30, upon its ends, which are guided in V-shaped ways, 31, in the vertical sides of a rectangular casing, 32, secured upon the front of the motor casing. The cross-head has a clamping-strap 33, upon its closed outer side, and said strap clasps around a rod, 34, guided to reciprocate vertically in the casing, and a screw, 35 through the end of said strap serves to draw the strap against the rod to tightly clamp the latter. The knife 11 is secured to the lower end of said rod. A presser-foot, 36, is secured to a rod 37, adjus- tably supported upon the forward face of an extension, 38, of the rectangular casing. The rod to which the knife is secured is guided in said extension, and the upper portion, 39, of said rod is tubular and is vertically movable upon a guide-rod, 40, secured to project downward from the upper end of the rectangular casing.

In practice, the presser-foot is adjusted above the base-plate to a height corresponding to the thickness of the pile of fabric to be cut, and after the motor has been started to reciprocate the knife by means of the

anti-friction wrist-pin and the cross-head, the cutter is guided by the handle to have the base-plate slip beneath the pile of fabric, the reciprocating knife cutting through
5 such pile, following the pattern outlined upon the same. Heretofore, cutters of this character have been mounted upon rollers in the base-plate traveling upon the cutting table, but such rollers being only capable of
10 rotating in a substantially straight line, would drag when the cutter was moved laterally. The ball-casters of my cutter admit of the machine traveling with ease in all directions. The hinged frame-portion of
15 the base-plate admits of the forward edge of the same bearing directly upon the surface of the cutting-table, thereby admitting of the base-plate engaging beneath the bottom layer of the pile of fabric irrespective
20 of the thinness and softness of such fabric.

Vibration of the machine by the rapid reciprocation of the knife when the latter is reciprocated by pitman-connection to a crank upon the motor-shaft, such as is

usually employed in machines of this character, is avoided by the wrist-pin and slotted cross-head, and the anti-friction ball-bearings for the motor-shaft and wrist-pin reduce friction of the parts, avoid excessive lubrication and reduce vibration. 30

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

In a cloth-cutter, a central base-plate portion, universally movable casters beneath 35 the front of such portion, a separate outer continuous frame having beveled edges and hinged at its inner rear edge to the rear edge of said central portion to have free movement and to contact by gravity with 40 the work-table, and universally movable casters beneath the rear portion of said frame.

MORRIS Z. CLAVANS.

Witnesses:

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