P. L. O'BRIEN.

Stencil-Cutter.

No. 160,613. Patented March 9, 1875.

Fig: 1.

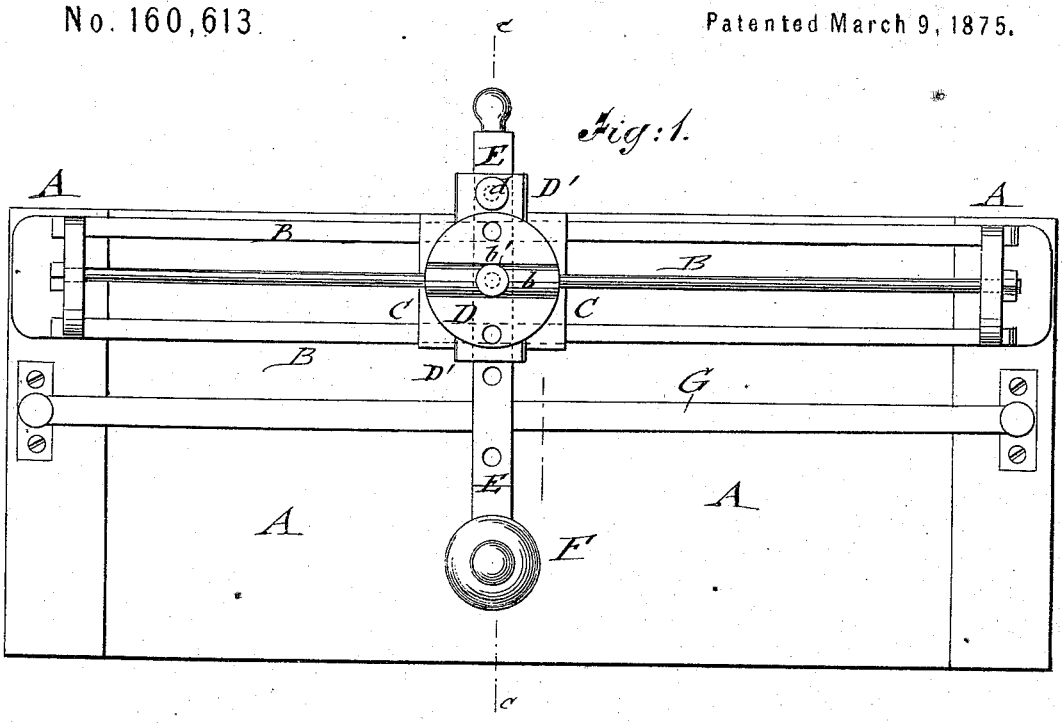


Fig: 3.

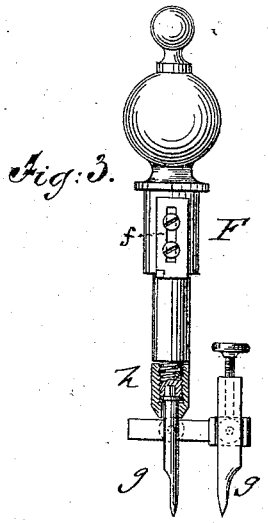
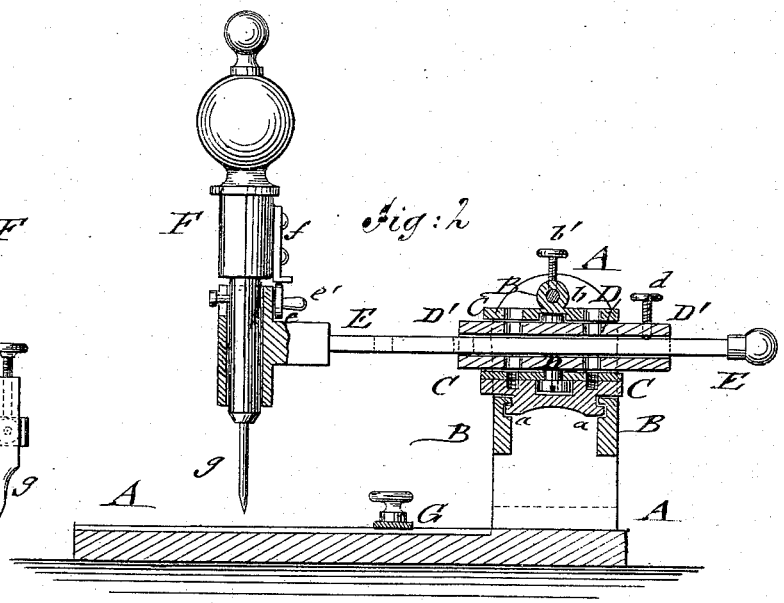


Fig: 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

PATRICK L. O'BRIEN, OF NEW YORK, N. Y.

IMPROVEMENT IN STENCIL-CUTTERS.

Specification forming part of Letters Patent No. **160,613**, dated March 9, 1875; application filed December 28, 1874.

To all whom it may concern:

Be it known that I, PATRICK L. O'BRIEN, of the city, county, and State of New York, have invented an Improved Stencil-Cutter, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a top view; Fig. 2, a vertical transverse section on the line *c c*, Fig. 1; and Fig. 3, a sectional elevation, with double knives, of my improved stencil-cutter.

The object of my invention is to provide, for decorators, stencil-makers, and others, an improved device or machine for cutting out any desired pattern or design from paper, pasteboard, sheet metal, or other material, in a rapid, convenient, and economical manner.

The invention consists of a stencil-cutting device, which is guided longitudinally and laterally on suitable supporting and sliding frames, and adjustable to produce single and double, straight, circular, or curved lines, being readily operated by one hand, while the stencil plate or sheet is fed to the cutting-knife with the other hand.

Similar letters of reference indicate corresponding parts.

In the drawing, A represents a supporting-frame, with longitudinal guide-rods B, on which is guided, by projecting strips *a* and top sleeve *b*, the cutter-carrying slide-frame C, which may be secured, by a set-screw, *b'*, in the top sleeve, to any point on the guide-rods B. The sliding frame C carries a circular casing, D, which is centrally pivoted to the top and base plates of frame C, so as to be capable of turning readily therein. Casing D is diametrically recessed, and provided with sleeve-shaped extensions D', for guiding the adjustable cutter-arm E therein, which may, by the sliding and turning frame and casing, be set to any point, direction, or length on the main frame, so as to be moved in straight or curved line, or be swung in a true circle, according as set-screws *d* are applied to the cutter-arm E or casing D. The sleeve-shaped front end of the cutter-arm E supports the vertical weighted cutter-standard F, which is readily raised and lowered therein by a pivoted cam, *e*, with thumb-piece *e'*, acting on an adjustable set-plate, *f*, of the standard, by which the degree of lift may be regulated according to the greater or lesser length of the cutting-knives secured to the lower part of the standard. One or more cutting knives or blades, *g*, made adjustable to any width by guide-rod and set-screws, are secured by fastening screw-socket or thimble *h* binding the top flange of the cutting-knife rigidly to the end of the standard F, and are applied by the weight at its top part to the stencil pattern or sheet exposed to the action of the same. A longitudinal guide strip or rule, G, attached by set-screws to the base or supporting frame, serves to draw straight lines with the cutting-knives when they are set by their supporting-arms and set-screws to the exact position in the sliding carriage. For curved lines, the cutter-arm slides freely in the casing, one hand guiding the knives by means of the adjustability of the cutter-arm in any direction, controlling at the same time the standard, while the other hand feeds slowly the stencil pattern or design to the knife.

For cutting circular lines, the cutter-arm is clamped to the sleeve extension of the casing, and the casing to the guide-rods, the circle being then struck by swinging the standard around the center pivot of the casing, by which mathematically true circles are obtained.

It will be understood that the machine is employed to cut out patterns already designed or marked out on the material, the object being to provide any desired number of stencil pattern-plates in a shorter space of time than is practicable by other means.

In operating the machine, the hand is applied to the enlarged head of the standard, and the same moved in the desired direction, following the straight or curved lines of the pattern, and the movement being repeated or continued until the material is cut through and the desired pattern produced.

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

1. A stencil-cutter constructed of a main or supporting frame, A B, sliding casing C, with pivoted cutter-arm, carrying part D D', adjustable cutter-arm E, and weighted cutter-standard F, having one or two knives at-

tached thereto, the whole to be operated substantially in the manner and for the purpose specified.

2. The sliding frame C, with interior pivoted casing or part D, having diametrically-extending guide-sleeves, in combination with the cutter-carrying arm E, being adjustable by means of set-screws, in such a manner that the cutter-arm may be moved in straight, curved, and circular lines, as required for cutting out the pattern, as specified.

3. The weighted cutter-standard F, being guided in the sleeve-shaped end of cutter-arm E, and having adjustable shoulder-plate *f*, in combination with the pivoted cam *e* of the cutter-arm, for being raised or lowered within a fixed distance, substantially as and for the purpose specified.

PATRICK L. O'BRIEN.

Witnesses:

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