(No Model.)

J. MESEROLE.

ROTARY PAPER CUTTER.

No. 346,167. Patented July 27, 1886.

Fig. 1.

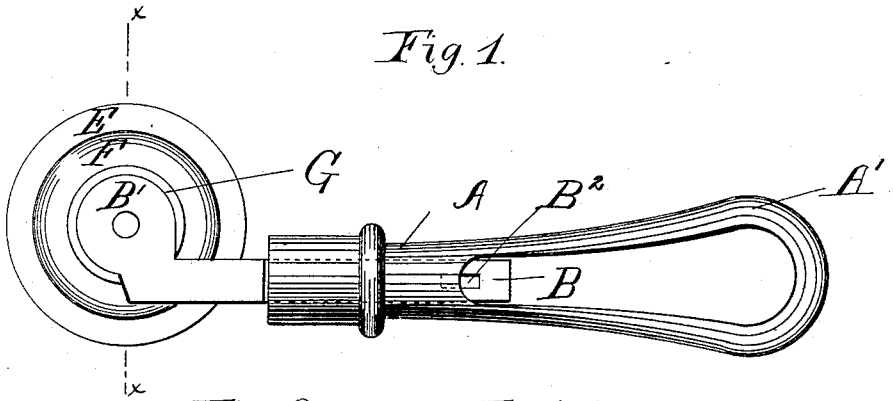


Fig. 2.

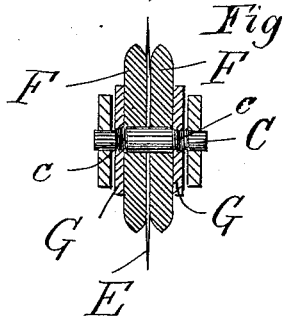


Fig. 3.

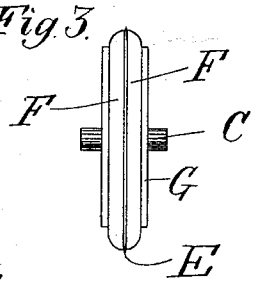
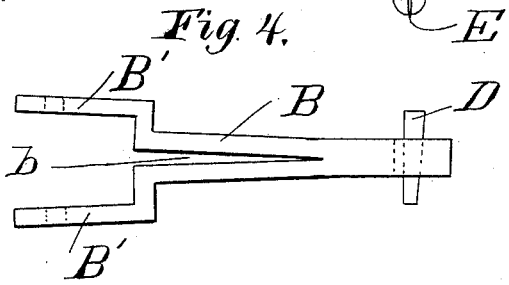


Fig. 4.



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UNITED STATES PATENT OFFICE.

JACOB MESEROLE, OF SOUTHINGTON, CONNECTICUT.

ROTARY PAPER-CUTTER.

SPECIFICATION forming part of Letters Patent No. 346,167, dated July 27, 1886.

Application filed August 12, 1885. Serial No. 174,197. (No model.)

To all whom it may concern:

Be it known that I, JACOB MESEROLE, a citizen of the United States, residing at Southington, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Rotary Paper-Cutters, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to rotary cutters for paper and other articles; and it consists in a circular rotary cutting-blade, two rubber disks of diameter practically equal thereto, and clamping devices for holding said disks against said blade, in combination with a shaft on which said blade and disks are mounted, and a tang and handle, the rubber disks clinging to the paper to be cut before and on each side of the point of incision, and the whole constituting a rotary hand-operated cutter.

Said invention further consists in a handle having an opening, in combination with a bifurcated spring-tang having a slot, a wedge which passes through an opening in said slot, and the removable shaft, which turns in the bearings of said tang, substantially as hereinafter set forth and claimed.

In the accompanying drawings, Figure 1 represents a side elevation of my improved cutter, the implement being shown inverted. Fig. 2 represents a vertical transverse section of one form of the same on the line *x x* of Fig. 1. Fig. 3 represents a front elevation of another form of the cutter, omitting the tang and handle; and Fig. 4 represents a detail plan view of the spring-tang.

A designates the handle, the outer part of which is provided with an extensive opening, A′, and the inner part is tubular and angular in cross-section to fit over a bifurcated spring-tang, B. The normal position and appearance of this tang are as shown in Fig. 4, a deep longitudinal slit, *b*, down the middle of the tang allowing the bearings B′ B′ to diverge. These bearings receive the journal ends of a transverse shaft, C, when said bearings are forced toward one another and on said journal ends. This is effected by moving the tubular part of said handle longitudinally over said tang until the tubular wall of the handle forces the bifurcated parts of the tang into parallelism. When in this position, a slot, B^2, in said tang is opposite the inner end of opening A′. By forcing a wedge or key, D, through said slot, behind the tubular part of said handle A, all parts of the implement are firmly locked in place. By removing this wedge or key and withdrawing the handle from the tang the bifurcated ends of the latter will be allowed to diverge, as shown in Fig. 4, thus effecting the separation of shaft C from its bearings. On the cylindrical middle part of this shaft a removable circular knife or cutter, E, is mounted, and at each side of this a rubber disk, F, is mounted likewise. These disks F are clamped against the cutter by screw-tapped plates G, which engage with screw-threads *c* on said shaft. By unscrewing said plates the cutter and rubber disks are left free to be easily withdrawn.

The form shown in Fig. 3 is used for cutting surfaces, especially of paper, over which the cutting-blade and rubber disks run together. The diameter of the blade and disks should be almost identical, so that the pressure incident to cutting will cause the rubber of the peripheries of the disks to spread before the point of incision, and at the sides thereof, and cling to the paper. The latter will thereby be held in place during the operation of cutting, and greater accuracy and efficiency will be insured. As shown in Fig. 3, the disks F cling closely to the blade or cutter E at all points, and are rounded from their outer faces to said blade.

Fig. 2 illustrates a form of my cutter which is adapted to operate along a straight edge, on the top of which one of said disks F runs. Either one of the rubber disks may be used in this way, their peripheries being rounded up from both faces to a middle line. This gives them the shape of a roller having a periphery which is conical in cross-section. The diameter of the cutter or blade E in this form of my implement considerably exceeds that of the disks. The side of the protruding part of the blade is against the straight edge while in operation, and will of course be guided thereby. In all cases the disks hold the blade firmly in position.

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

1. A circular rotary cutting-blade, two rubber disks of diameter practically equal thereto, and clamping devices for holding said disks against said blade, in combination with a shaft on which said blade and disks are mounted, and a tang and handle, the rubber disks clinging to the paper to be cut before and on each side of the point of incision, and the whole constituting a rotary hand-operated cutter, substantially as set forth.

2. The handle A, having an opening, A′, in combination with a bifurcated spring-tang, B, having a slot, B^2, a wedge, D, which passes through an opening in said slot, and the removable shaft C, which turns in the bearings of said tang, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB MESEROLE.

Witnesses:

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