(No Model.)

W. L. HARDY.

ROTARY CUTTING KNIFE.

No. 435,627. Patented Sept. 2, 1890.

Fig. 1.

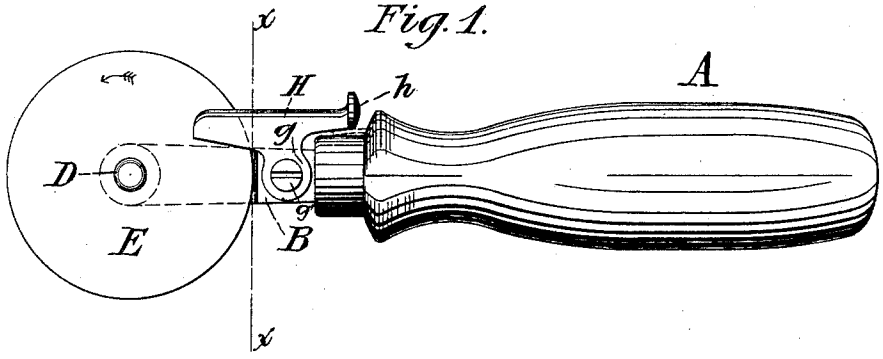


Fig. 2.

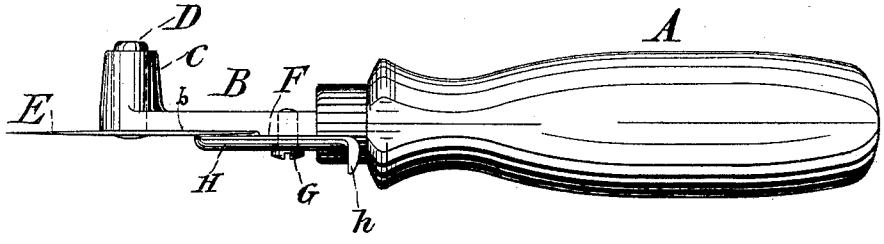


Fig. 3

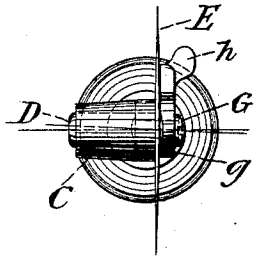
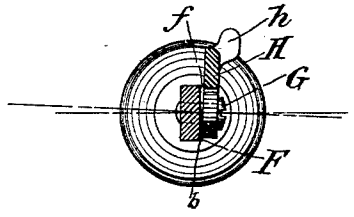


Fig. 4.



Witnesses
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WALLACE L. HARDY, OF OTTAWA, ILLINOIS.

ROTARY CUTTING-KNIFE.

SPECIFICATION forming part of Letters Patent No. 435,627, dated September 2, 1890.

Application filed March 15, 1890. Serial No. 343,958. (No model.)

To all whom it may concern:

Be it known that I, WALLACE L. HARDY, a citizen of the United States, residing at Ottawa, in the county of La Salle and State of Illinois, have invented certain new and useful Improvements in Cutting Implements; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to cutting implements more particularly designed for paper-hangers, although it can be put to many other uses; and my object is to produce a more efficient, useful, and durable article of this kind than has heretofore been known.

With this end in view my invention consists in certain peculiarities of construction and combinations of parts, more fully described hereinafter, and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a side elevation of my complete device; Fig. 2, a top view; Fig. 3, a front view, and Fig. 4 a section through line *x x*, Fig. 1.

The body portion of the device consists of a suitable handle A and a shank B projecting therefrom and provided on its outer end with a boss or hub C, which extends at right angles from it. In this boss C revolves the spindle D, on which is rigidly mounted the circular cutting-knife E, which rotates contiguous to the inside face *b* of the shank B. The inner portion F of this shank, or that part between the cutting-wheel and handle, is made with a slightly beveled or inclined face *f*, which is formed by gradually increasing the thickness of the shank at this portion toward its upper edge.

A stud G extends through the part F at its middle, and consists of a short threaded bolt having a head *g'* and arranged to be screwed into the shank at right angles to the tapering face *f*. Thus it will be seen that this stud or axis is situated at a slight angle to that of the circular cutter E, as shown more clearly in Fig. 3.

On the stud G is mounted a dog or brake H, which is provided at its center with a depending ear or projection *g*, through which the stud extends, and which bears against and is contiguous with the beveled face of the shank. The front end of this dog projects over the face of the wheel E, while its rear end extends back to the forward end of the handle, and is there provided with a thumb-piece or lug *h*, by means of which it is manipulated.

The preferred construction having been set forth, I will now proceed to describe the mode of application of the same.

When the device is simply used as an ordinary rotary knife, it will be operated away from the user, and thereby the cutting-wheel will be rotated in direction indicated by the arrow in Fig. 1 and the pawl will be kept from engagement with the knife; but when it is desired to use the wheel as a stationary cutting-edge it can be locked at any desired position by the operator pressing upward with his thumb upon the lug or thumb-piece *h*, thus forcing down the forward end of the dog against the wheel and tightly wedging the latter. This result is brought about by the fact, as previously stated, that the axis of the pawl is at an angle to that of the knife and the bearing-surface of the portion F of the shank is beveled, and hence upon forcing down the outer end of the dog it will be pushed in against the wheel, and the more pressure brought to bear the tighter the latter will be wedged. In using the device in this manner it will be drawn back toward the operator, and thus the dog will retain its hold, and, in fact, will be given a tendency to tighten on the knife as the latter tends to revolve backward. If desired, a spring can be placed beneath the rear end of the pawl, so that upon drawing back the knife it will be automatically locked, as shown in dotted lines in Fig. 1.

Among the advantages of my arrangement might be mentioned that the knife can be locked so that any portion of the edge can be used as a stationary cutter, and when such portion becomes dull the wheel can be released and turned and then again locked, thus presenting a new and sharp edge.

It is evident that my device might be varied in many slight ways which might suggest themselves to a skilled mechanic, and hence I do not confine myself to the precise construction herein shown, but consider myself entitled to all such variations as come within the spirit and scope of my invention.

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

1. In a cutting implement, a rotary knife, in combination with a dog or brake arranged to lock it from rotary movement, as set forth.

2. In a cutting implement, a rotary knife, in combination with a pivoted dog for locking it from rotary movement, substantially as described.

3. In a cutting implement, the combination of a suitable handle, a shank projecting therefrom, a rotary knife having bearings in the outer end of said shank, and a dog pivoted on said shank back of said knife and arranged to be thrown forward to lock the latter from rotary movement, substantially as described.

4. In a cutting implement, the combination of a rotary knife and locking device, substantially as described, the axis of which is at an angle to that of the knife, as and for the purpose set forth.

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

WALLACE L. HARDY.

Witnesses:

WALLACE J. RISING,

D. L. GROVE.