2 Sheets—Sheet 1.

A. WIETING.

PAPER CUTTING-MACHINE.

No. 185,005. Patented Dec. 5, 1876.

Fig. 1.

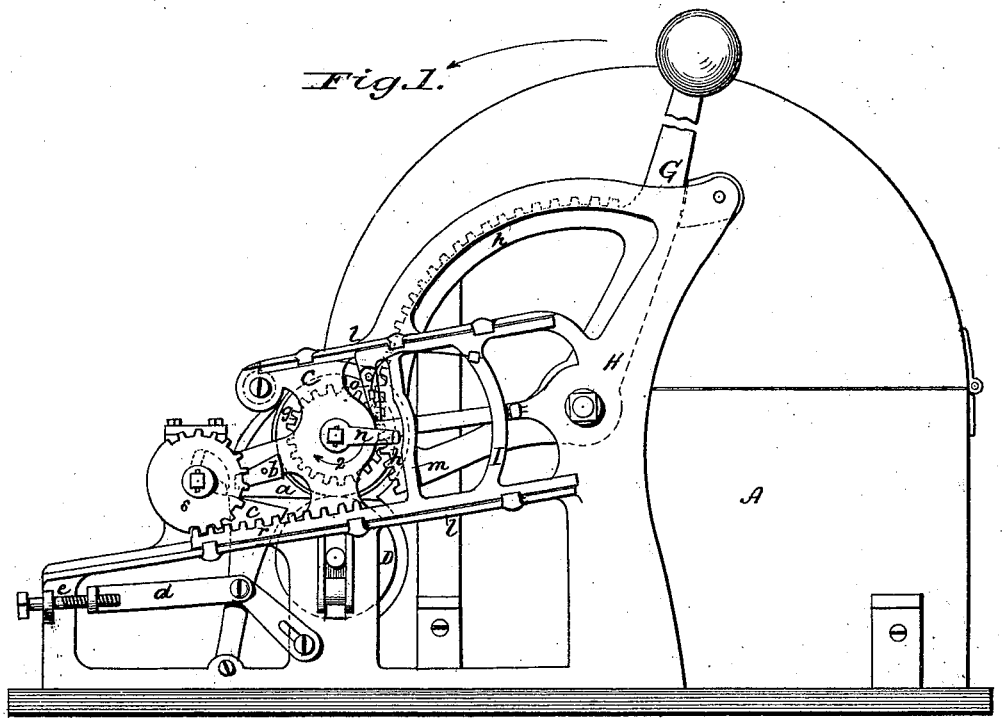
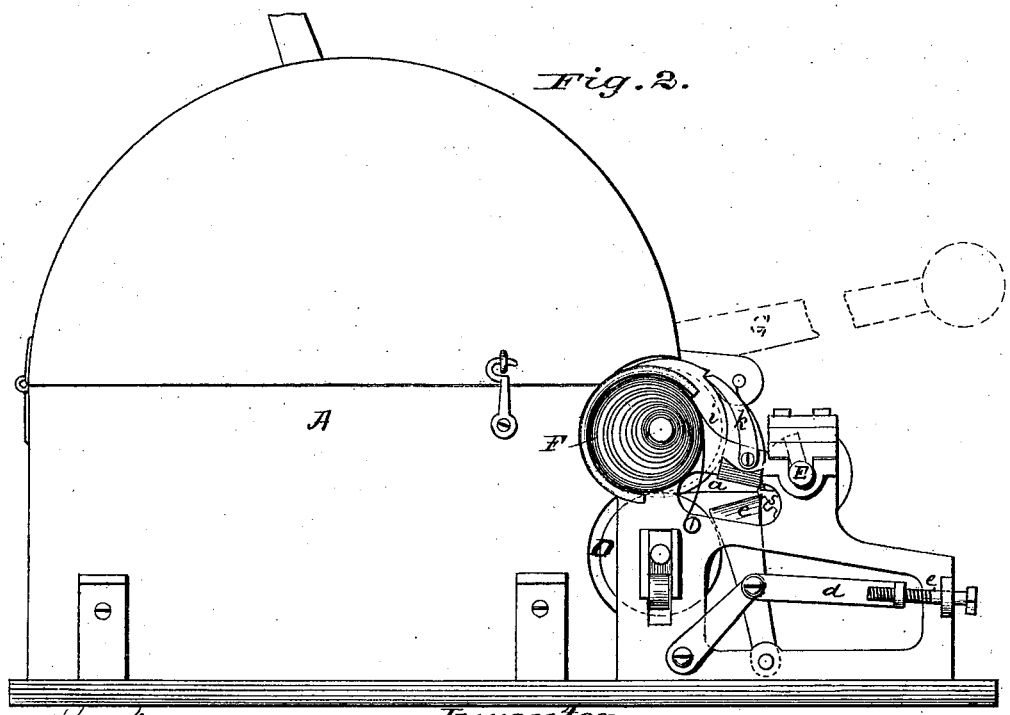


Fig. 2.



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Inventor:
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by atty Wm. H. Pinckert

2 Sheets—Sheet 2.

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Fig. 3.

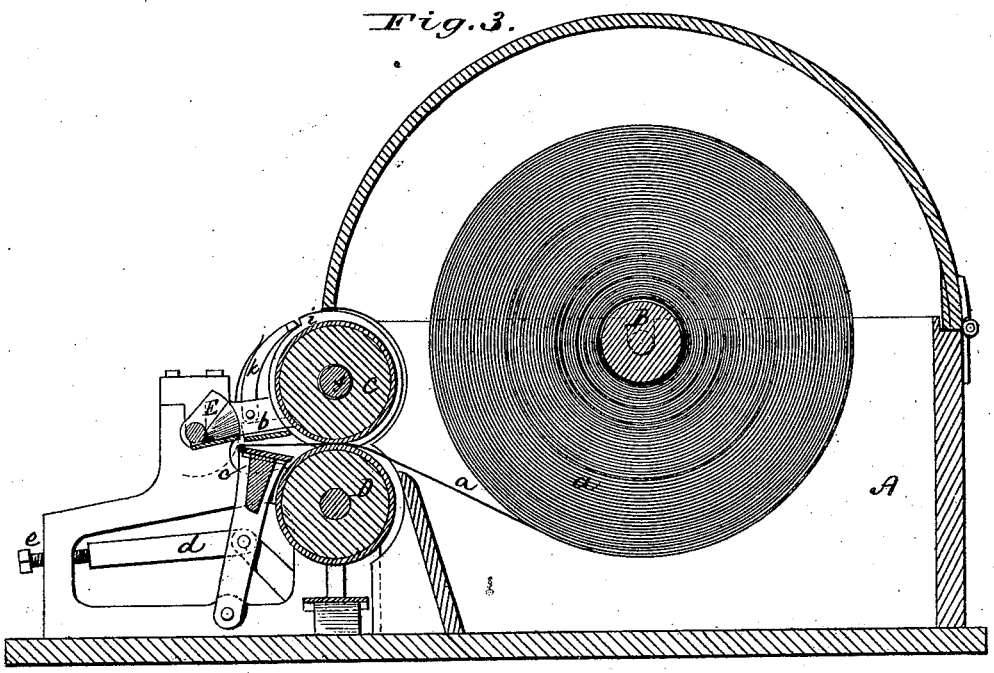


Fig. 4.

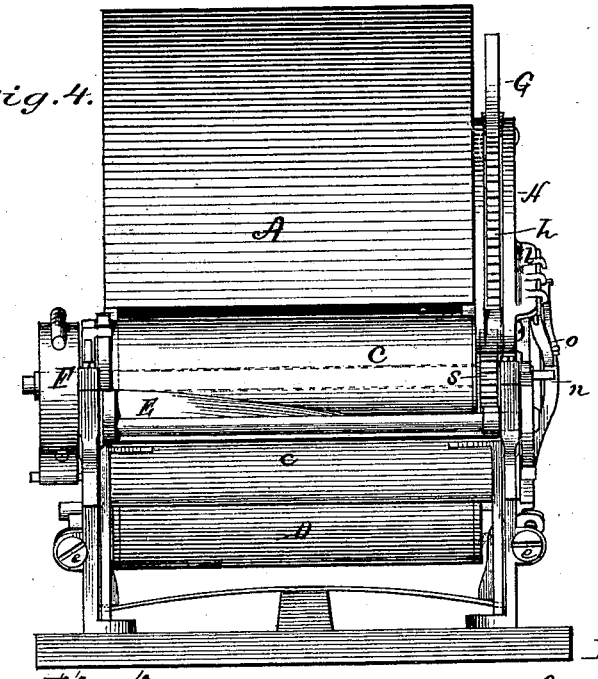
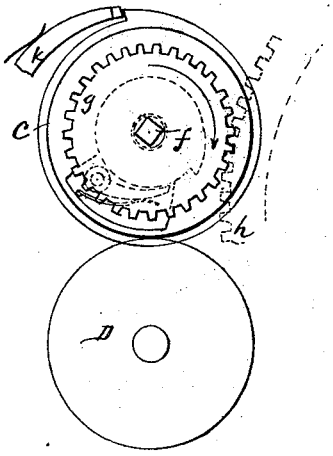


Fig. 5.



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UNITED STATES PATENT OFFICE.

ARCHIBALD WIETING, OF FORT PLAIN, NEW YORK.

IMPROVEMENT IN PAPER-CUTTING MACHINES.

Specification forming part of Letters Patent No. **185,005**, dated December 5, 1876; application filed April 17, 1876.

To all whom it may concern:

Be it known that I, ARCHIBALD WIETING, of Fort Plain, in the county of Montgomery and State of New York, have invented a new and useful Machine for Cutting Paper for Water-Closet Purposes, of which the following is a full, clear, and exact description.

This invention relates to a machine, for use in hotels and other establishments, for cutting paper for water-closet purposes; and the invention consists in a cutter or knife having an intermittent oscillating movement in the arc of a circle imparted thereto by gearing of peculiar construction, hereinafter specifically set forth, and combined with rolls adapted to feed the paper from a roll in pieces of given length, motion being given to the mechanism by a spring-power hand-lever, substantially as is specified.

In the drawings illustrating my invention, Figure 1 is an elevation of one side of my machine, and Fig. 2 a similar view of the other side. Fig. 3 is a central longitudinal section; Fig. 4, a front view; and Fig. 5, a view of the ends of the rolls, taken from the lever side of the machine.

Like letters refer to the same parts in the several figures.

The letter A designates a casing or box with a hinged or removable cover. In this box, and supported in suitable bearings, is placed a roll, B, around which is wound, in several thicknesses, long sheets of paper *a*. The end of this paper is passed between rolls C D, which feed it to a cutter or knife, E. The rolls C D may be of wood, rubber, or other material having sufficient friction to feed the paper to the knife. Between the knife and rolls is fixed an inclined plate, *b*, and below this plate is arranged a table, *c*, that is adjustable relatively to the knife by rods *d* and screws *e* on each side of the machine. The plate and table serve to afford a cutting edge or guide to the knife, and as means for keeping the several thicknesses of paper together, so as to present them smoothly and evenly to the action of the knife. The edge of the knife is of spiral outline, so as to obtain a draw cut. The lower roll D is hung in spring-bearings, so that it may have an automatic vertical play. The upper roll C is fitted loosely to a shaft, *f*, on one end of which is secured one end of a coiled spring, F, the other end of said spring being attached to the machine frame-work. To the other end of shaft *f* is fixed a pinion, *g*. The shaft *f* and the roll C are connected by a pawl and ratchet (see dotted lines, Fig. 5) in such manner that while the said shaft is made to complete an entire revolution in one direction, and then another in the opposite direction, the feed-roll rotates in one direction only. G is a lever pivoted to the framing H of the machine, and having a toothed segment, *h*, which engages with the pinion *g* on shaft *f*. At the spring end of the feed-roll C is fixed a ratchet, *i*, with which a pawl, *k*, engages for the purpose of preventing the roll turning back after having completed its revolution. On the lever end of the shaft *f* is fixed a crank-arm, *n*. On the framing H are fixed or made ways *l*, in which slides a frame, I. This frame is constructed with a cross-bar, *m*, and a jointed spring stop-piece, *o*, yielding in one direction only, with both of which the crank-arm *n* co-operates. *r* is a toothed rack on said frame I, which engages with a pinion or toothed segment, *s*, on the knife-shaft, for the purpose of operating said knife, to which it imparts an intermittent oscillating motion in the arc of a circle.

The operation is as follows: The lever G is drawn down in the direction of arrow, Fig. 1, and when in the position indicated in the dotted lines, Fig. 2, it will have so turned the rolls C D as to have fed out the given length of paper, and the shaft *f* will have completed its revolution in one direction, carrying its crank-arm *n* in the direction of arrow 2, Fig. 1, past stop *o*, and to the position indicated in said Fig. 1. The spring F will thus be wound up or tightened, and, upon releasing the downward pressure upon the lever, the force of the spring will, acting through the shaft *f* and pinion *g* on the segment *h*, force said lever back to its normal position, Fig. 1. In so doing the crank-arm *n* engages with the back of the stop *o*, and, in its revolution in the direction opposite to that indicated by arrow 2, it will move the frame I forward, and the rack *r* will operate the knife, through the pinion *s*, so as to carry said knife downward, whereby the paper previously fed out will be cut off in

a straight line. When the crank-arm shall have passed below the stop *o* and is free from it, in the course of its revolution in this direction it will come in contact with the cross-bar *m* and force the frame back to its normal position. In so doing the rack *r* carries the knife back to it first position. The knife works in such close contact with the table *c* as to constantly sharpen its edge, thereby keeping itself in good order.

It is designed to place this machine in hotels and other places where persons having need thereof may cut off their supply of paper.

What I claim is—

1. The combination, with the knife, of the frame I, crank-arm *n*, and lever G, substantially as described.

2. The combination of the spring F, shaft *f*, loose roll C, and the pawl-and-ratchet connection of said shaft and roll with the lever G, substantially as described.

3. The combination of the crank-arm *n*, jointed stop *o*, and cross-bar *m* with the lever G, rolls C D, and knife, substantially as described.

4. The frame I, constructed with the jointed stop *o*, cross-bar *m*, and rack *r*, substantially as and for the purpose described.

ARCHIBALD WIETING.

Witnesses:
GEORGE YOST,
JOHN S. YOST.