

(No Model.)

2 Sheets—Sheet 1.

J. M. KEEP.
ROLL PAPER HOLDER AND CUTTER.

No. 464,972.

Patented Dec. 15, 1891.

Fig. 1

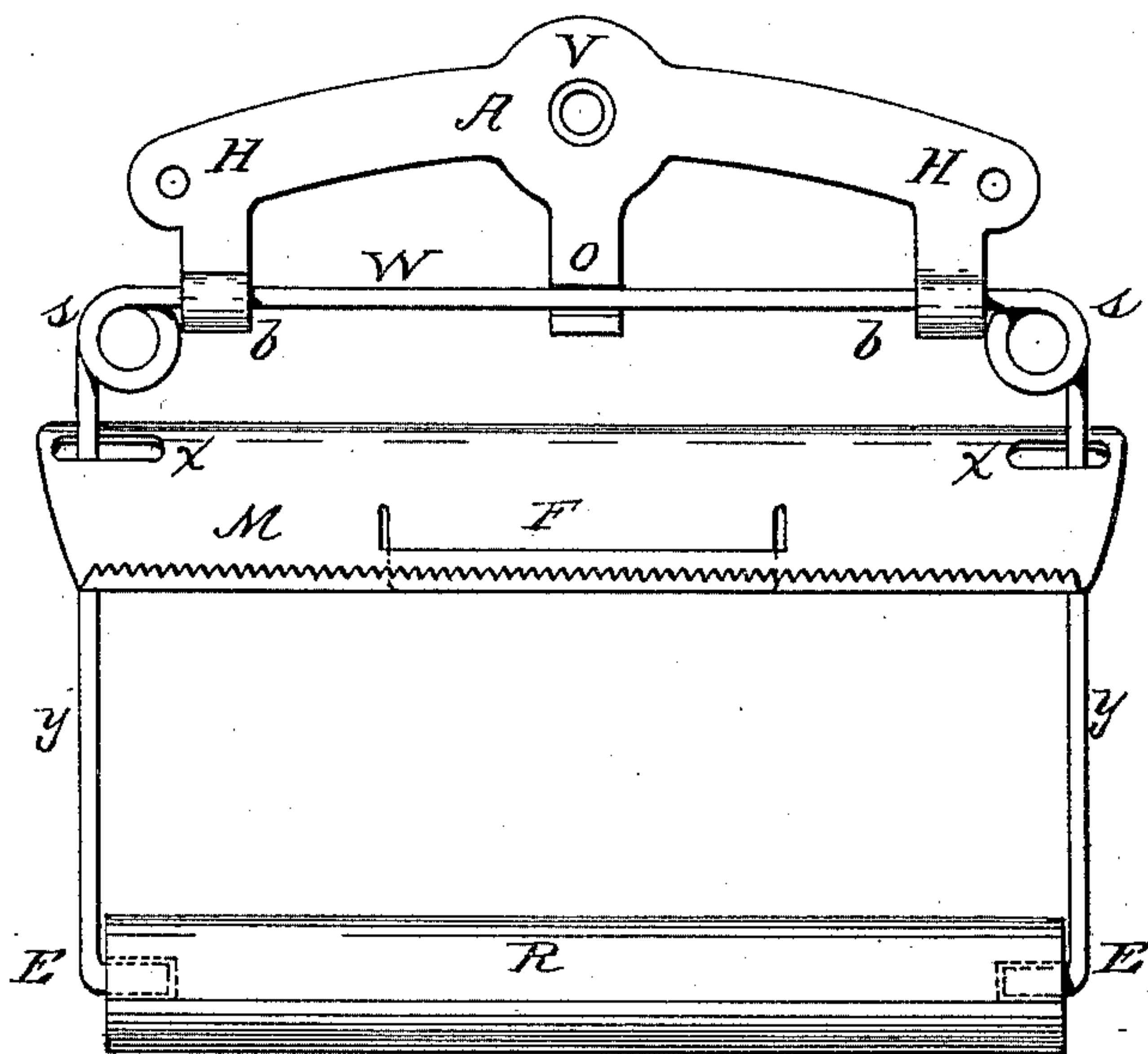
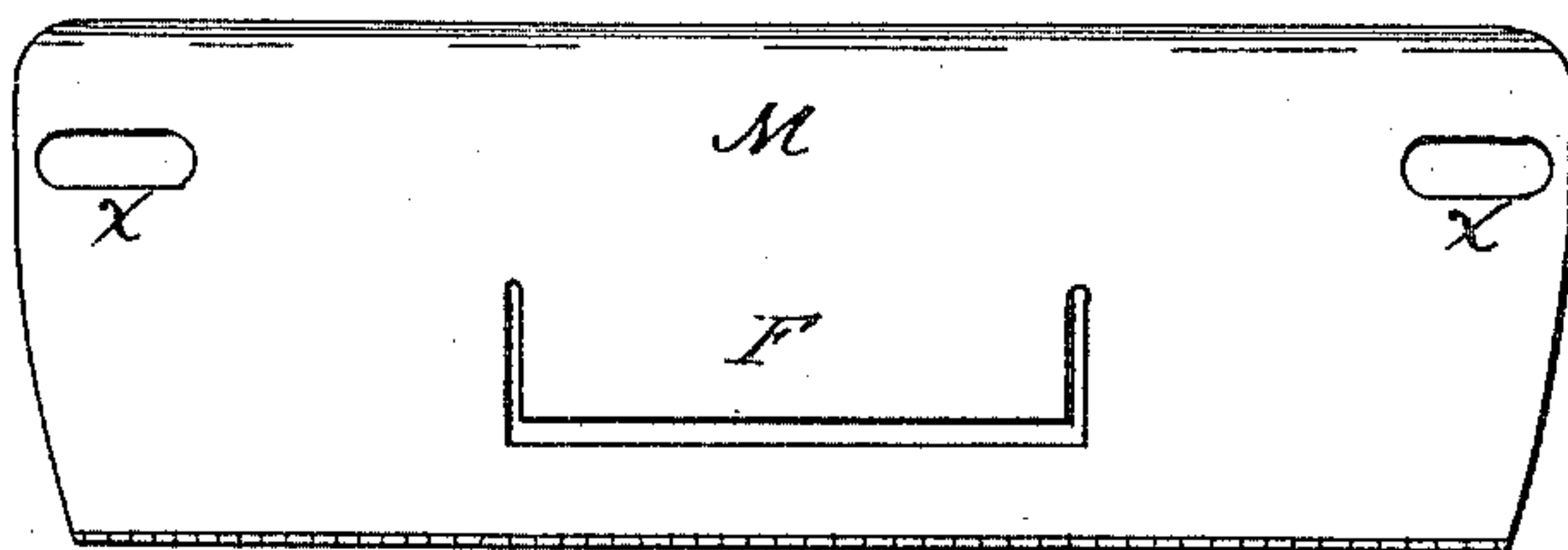


Fig. 2



Witnesses
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UNITED STATES PATENT OFFICE.

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ROLL-PAPER HOLDER AND CUTTER.

SPECIFICATION forming part of Letters Patent No. 464,972, dated December 15, 1891.

Application filed June 4, 1891. Serial No. 395,161. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. KEEP, a citizen of the United States, and a resident of New York city, county of New York, State of New York, have invented a new and useful Improvement in Roll-Paper Holders and Cutters, of which the following is a specification.

My invention relates to that class of fixtures in use for holding and dispensing perforated or non-perforated toilet and wrapping paper from rolls.

My object is to furnish a simply-constructed, cheap, and effective device for that purpose. I do hereby declare the following to be a full, clear, and distinct description of my invention, the accompanying drawings and the references thereto forming a part of this specification.

In the construction of toilet and wrapping paper reels my improvement consists of, first, a suspending bracket made with an open journal-bearing at either end and intermediate opposite bearing or bearings; second, a bail made of wire spirally coiled at its upper corners; third, a self-adjusting toothed blade, especially constructed with a fulcrum or rest. These several parts, with my improvements thereon and their operation, will be hereinafter more fully described, and shown in the drawings.

Figure 1 shows a reel composed of the different parts named, fitted and attached to each other, of which A is the suspending-bracket, having open bearings *b b* and an intermediate opposite bearing O, and provided with holes H H for permanently fastening it upon a wall or casing and an opening V at the middle for hanging it upon a single nail or hook. W is the bail made of light wire, showing the spiral coils *s s* at its upper corners, which increase its elasticity when being expanded to receive the core R or roll of paper. M is a sheet-metal blade provided with slots X X at either end for the purpose of confining it in position by the bail-arms Y Y. It is also provided with teeth, as shown upon its front edge, which are turned upward. It also shows the position of the fulcrum F, which is a portion of the metal cut loose upon three sides and forced downward to form the fulcrum.

Fig. 2 is a plain view of the sheet-metal blade, showing a desirable conformation and the relative position of the fulcrum F with the slots at either end.

Fig. 3 is a front view of a reel complete, and suspending a roll of paper P *p* for use. All of its parts and its operation are hereinafter more fully described.

Fig. 4 is a central cross-section of Fig. 3. When looked at the front is at the right; A, the bracket; *b*, one of the bearings open upon the back side; O, the intermediate and opposite bearing; Y, the lateral arms of the wire bail. M is the sheet-metal blade, showing the up-turned teeth in front, the curve Z at the back side, and the fulcrum F, which serves to hold the blade in a horizontal position, as shown, and to prevent it from tilting forward while the paper is being cut. P is the paper-roll, and R the roller or core. *p* is an end of the paper as drawn from the roll and in position to be cut therefrom.

The bracket A is preferably made of cast-iron, or it may be formed up of sheet metal with lateral journal-bearings *b b* at either end. These bearings are open on the reverse or back side. They are also on a horizontal line with each other, their concavity being sufficiently large to admit the horizontal bar of the bail-wire to a little more than its diameter. The front surface of the brace O, which extends down from the center of the bracket and a little below the horizontal line of the open bearings, is on a plane with the bearings, so that when a straight rod, as the bail-wire, is passed endwise into one of the end bearings it may also pass over the brace and into the bearing at the other end. The brace forms an opposite bearing, which will confine the wire in the open bearings. The bracket is also provided with an eye or loop for the purpose of hanging it upon a single nail or hook; also with holes at either end, by which it may be firmly screwed or nailed to a wall or casing.

The bail W Y Y, Fig. 1, is made of springy wire of suitable size and length, each end of which is turned at right angles by giving it preferably a spiral coil *s s* at the corners. This will form three sides to the bail. A short portion of the wire at its lower ends is bent

inward to form hooks E, which are to enter the ends of the core R, Fig. 1. The spiral coils at the corners greatly increase the elasticity of the bail, thus rendering it easy of adjustment and less liable to get out of order when affixing a roll of paper.

The roller or core R, Fig. 1, may be made of wood of suitable diameter and length, preferably round bored at each end, so as to admit the short hooks formed upon the lower ends of the bail-wire.

The toothed cutter or blade M shown in the drawings may be made of tin or other sheet metal, but its dimensions and shape must be particularly regarded. This blade is toothed on the front edge and slotted at either end, preferably with a round hole at one end and an open slot at the other. These must be of suitable size and a proper distance apart to admit the side bail-wires, and they should be situated about two-thirds of the width of the blade back from the toothed edge. At about midway the length of the blade the fulcrum F is formed by cutting loose upon three sides a portion of the blade, as shown at F, Fig. 2. Thus a trisided section of the metal is formed, which is to be forced downward to form the fulcrum. Other methods to form the fulcrum may be substituted. The back or smooth edge of the blade is curved downward, as at Z, Fig. 4, so as to conform to the shape of the roll of paper when at its smallest diameter at the core. The front portion of the blade is left flat, except a slight margin, including the teeth, which is turned at a right angle upward. The core or roller is preferably round and made of wood, bored at each end to admit the bail-hooks.

The several parts having been properly proportioned and formed to construct a reel of any desired size, they are attached to each other for use as follows: With the short side of the bail-wire turned backward at a right angle with the bracket, place one end of the long side of the bail-wire over the central bearing, the other end resting in one of the open bearings. Then slide the wire to the other end and into the bearing. Now turn the bail downward on a plane with the bracket and forward and backward at pleasure. The bracket and bail form a freely-working hinge that can be separated only by reversing the method of adjustment. The intermediate brace or bearing securely holds the bail-wire in the open journals. This admits of the reel being hung upon a single nail or hook by the opening V in the bracket. The cutter or blade is now put upon the short arms of the bail by passing one of them through the round hole at one end of the blade; then the slotted end upon the other arm. Take care to have the toothed side of the blade upward and in front. To attach the core R, raise the blade up as far as possible, then expand the hooks to admit it. The reel is now complete, as shown in Fig. 1, and is ready for use. The bracket

being cast, as described, it requires no drilling or otherwise fitting to couple the bail-wire with it. The bail-wire being coiled at the upper corners admits of its being freely expanded when passing it over the roll of paper to connect the hooks with the core, and insures a permanent grip upon the core.

To adjust the paper in the reel, place the core in the central opening of the roll, then the core with the roll of paper between the bail-hooks, taking care to have the loose end *p* of the paper drawn forward over the blade, as shown in Fig. 4. The blade should be of sufficient width to admit of the teeth extending nearly to the front surface of the roll of paper. This will insure an instant engagement of the paper with the upturned teeth and form a rest for the projecting undetached paper, which cannot recoil when the roll rests against the wall or casing. When a sufficient quantity of the paper has been drawn off over the blade, it may be easily detached by a gentle downward lateral pull, leaving a projecting end of paper upon the blade for a succeeding hold. During this operation it will be observed that the fulcrum F, Figs. 3 and 4, is very essential. It serves as a rest to hold the blade in a horizontal position. Its nearness to the front edge of the blade gives the longest leverage to the opposite or curved edge. When the paper is drawn tightly over the blade, the long lever furnishes the greatest resistance, thus preventing the cutting-edge from tilting downward, which would in a measure destroy its effectiveness. The back edge of the blade is curved downward, so that it may rest closely on the paper. This prevents the front edge of the blade from turning upward. By the strain of the paper over the blade the curved edge of the blade and the fulcrum are simultaneously indented into the paper. This serves as a grip upon the roll, which firmly holds it from turning while the paper is being cut.

Having described and shown in the drawings a toilet and wrapping paper device embodying my improvements, which have been particularly pointed out, I do not claim, broadly, the bracket with only open bearings at either end, nor the bail with a single or spiral coil bent at its upper corners, nor a flat toothed blade made of sheet metal and having holes for the bail-wires at either end. I am aware that these thus simply formed have been in use; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. In a roll-paper holder and cutter, the bracket A, having a journal-bearing at either end open on one side and an intermediate bearing or bearings for securely holding a bail-shaped wire in the end bearings, which will at the same time admit the bail to rotate freely therein, substantially as and for the purpose shown and described.

2. In a roll-paper holder and cutter, a sheet-

metal blade provided with a fulcrum F, the
curve Z, and a serrated upturned edge, in
combination with a bracket, a bail, and a core,
all constructed and arranged to operate sub-
stantially as described.

5 In testimony that I claim the foregoing as
my invention I have signed my name, in pres-

ence of two witnesses, this the 2d day of June,
1891.

JAS. M. KEEP.

Witnesses:

W. A. HILL,

J. ODELL FOWLER, Jr.