

(No Model.)

2 Sheets—Sheet 1.

J. T. HOYT.
CABINET FOR SANITARY TOILET PAPER.

No. 333,073.

Patented Dec. 22, 1885.

Fig. 2

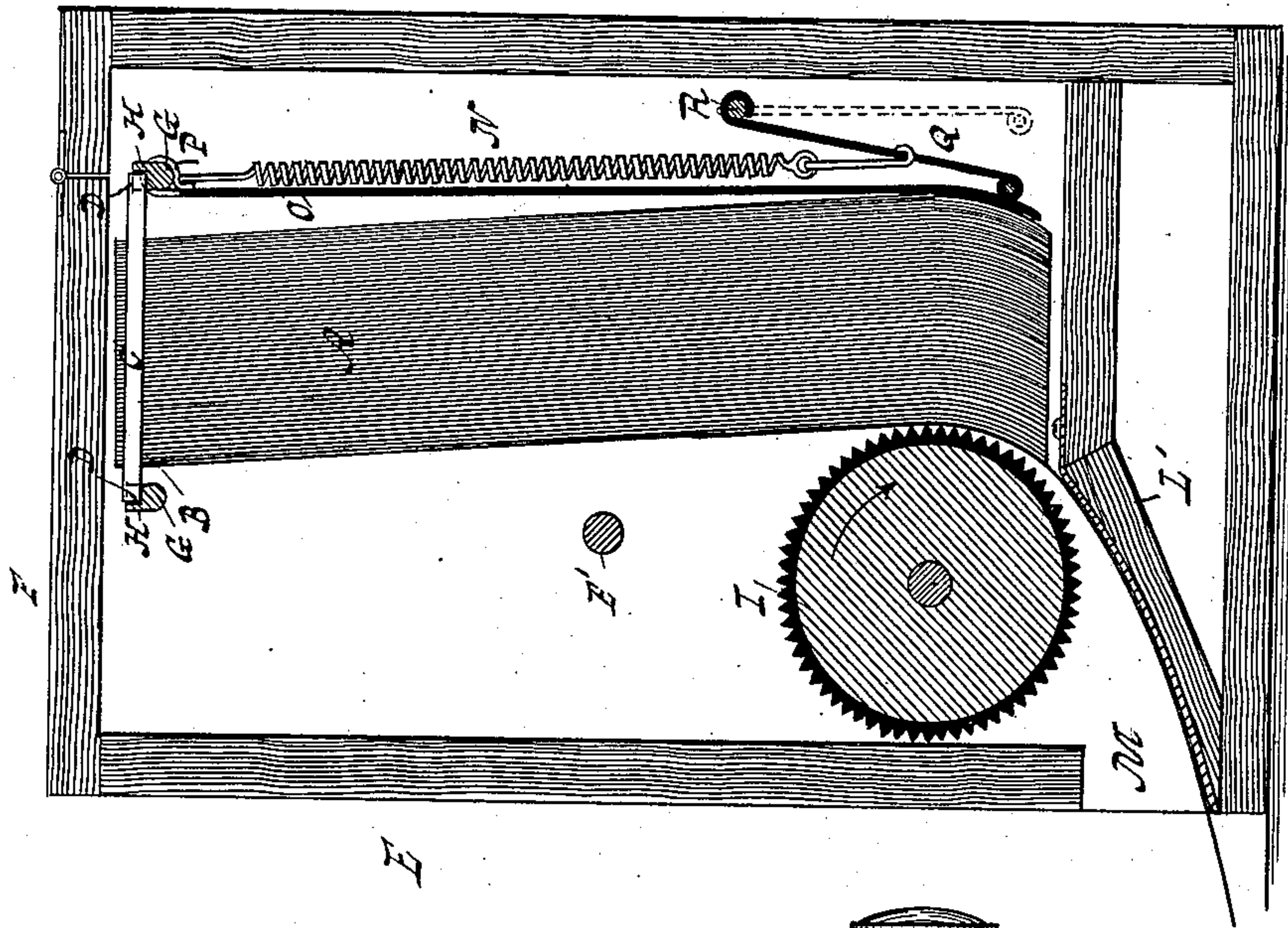
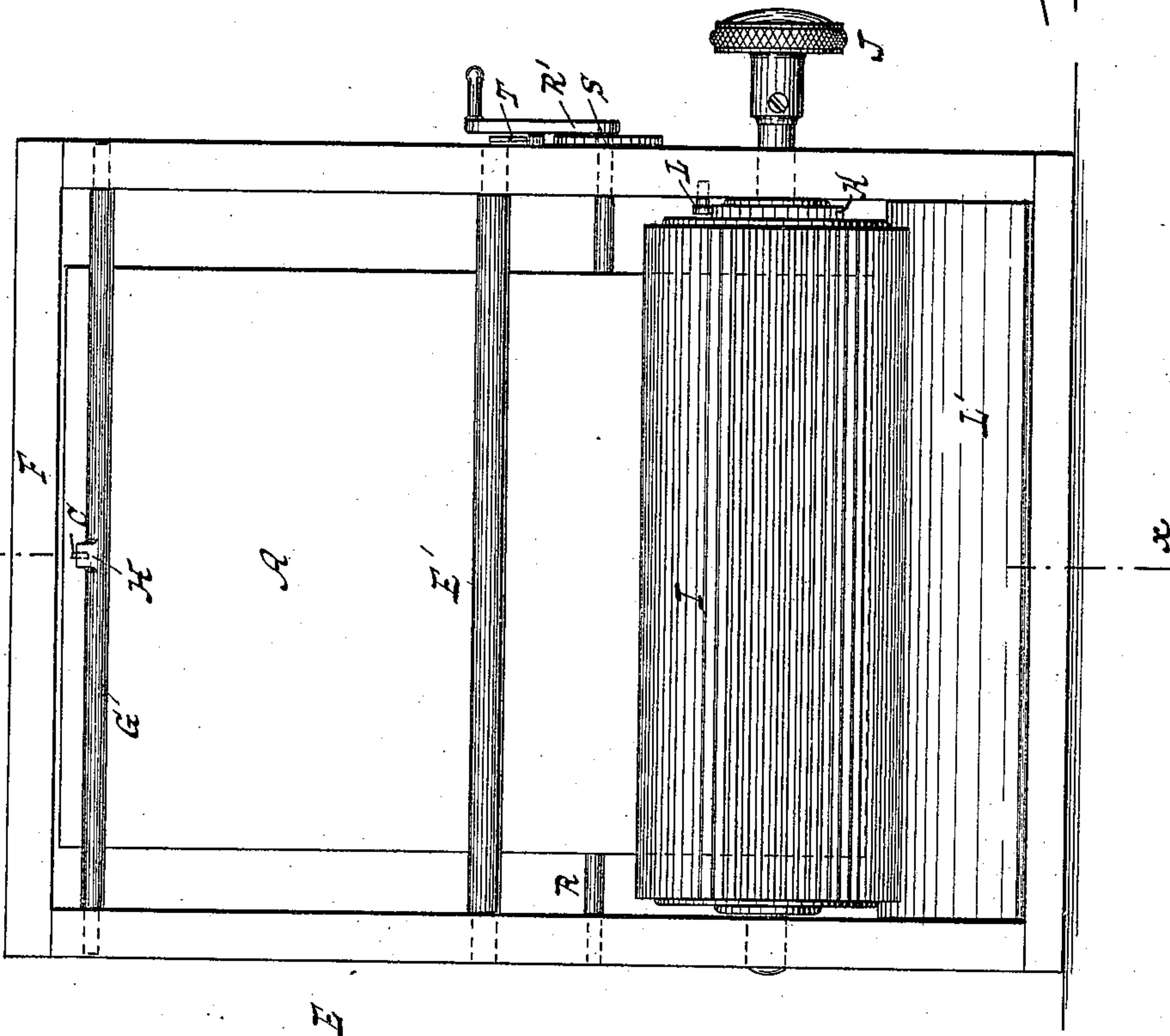


Fig. 1.



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INVENTOR

James T. Hoyt

BY

Van Santwoord & Hauf

ATTORNEYS

(No Model.)

2 Sheets—Sheet 2.

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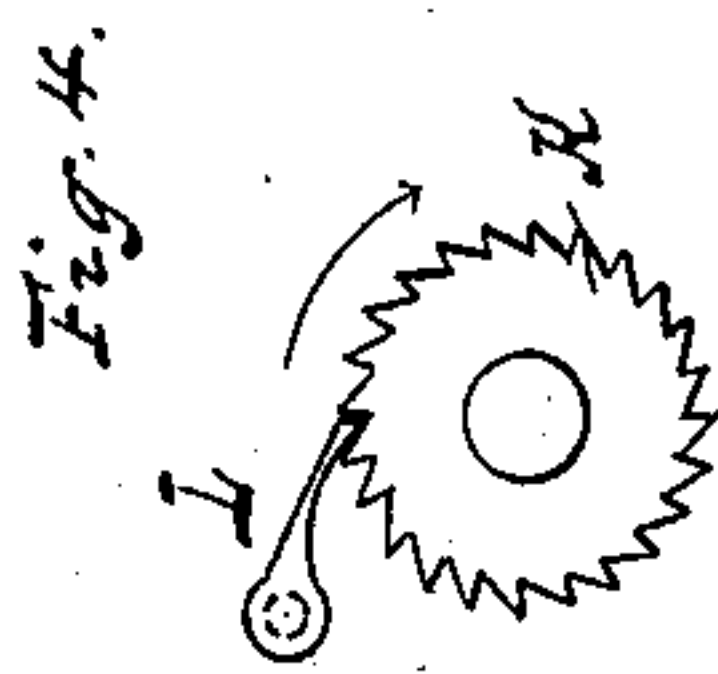
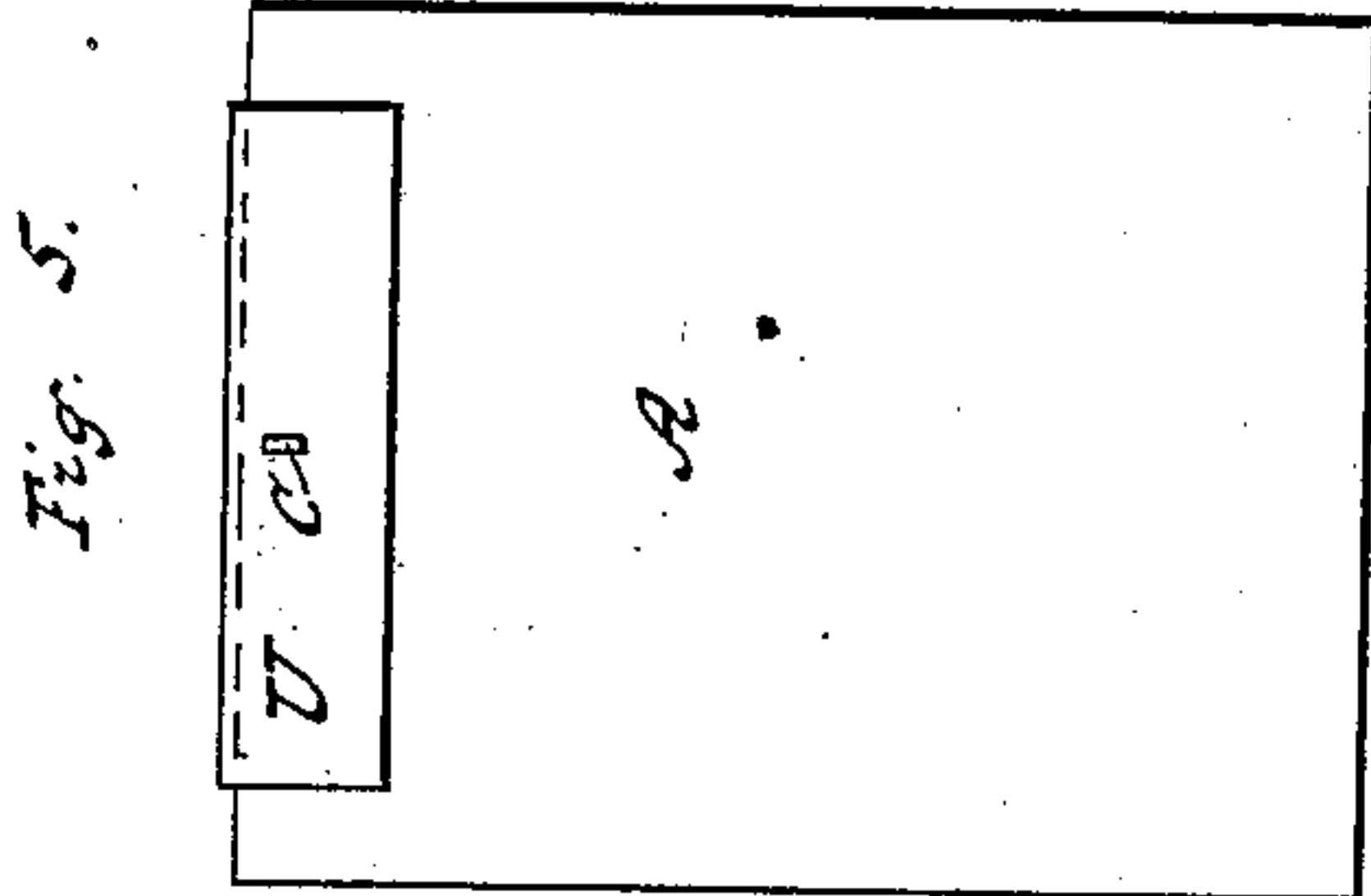
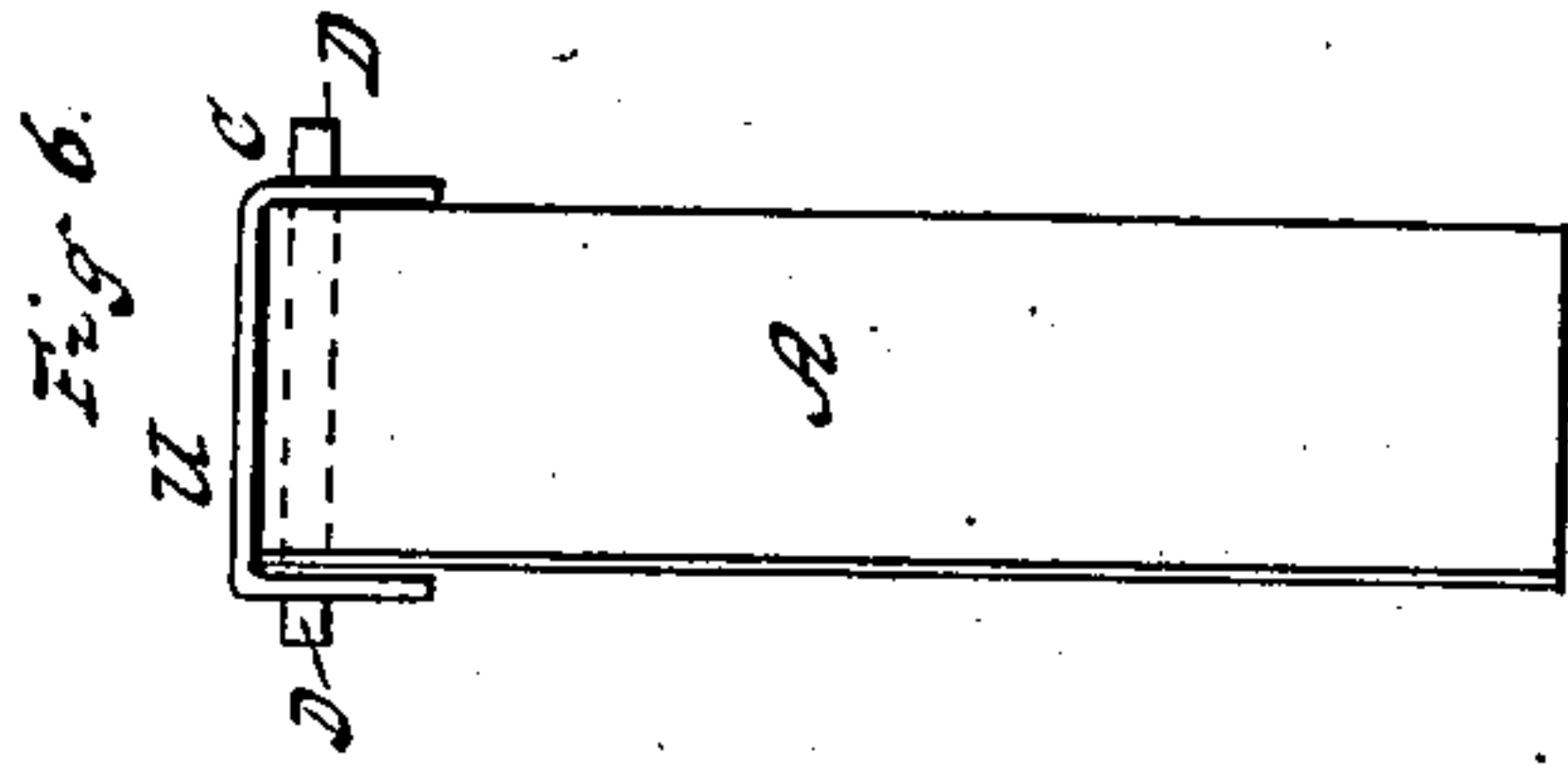
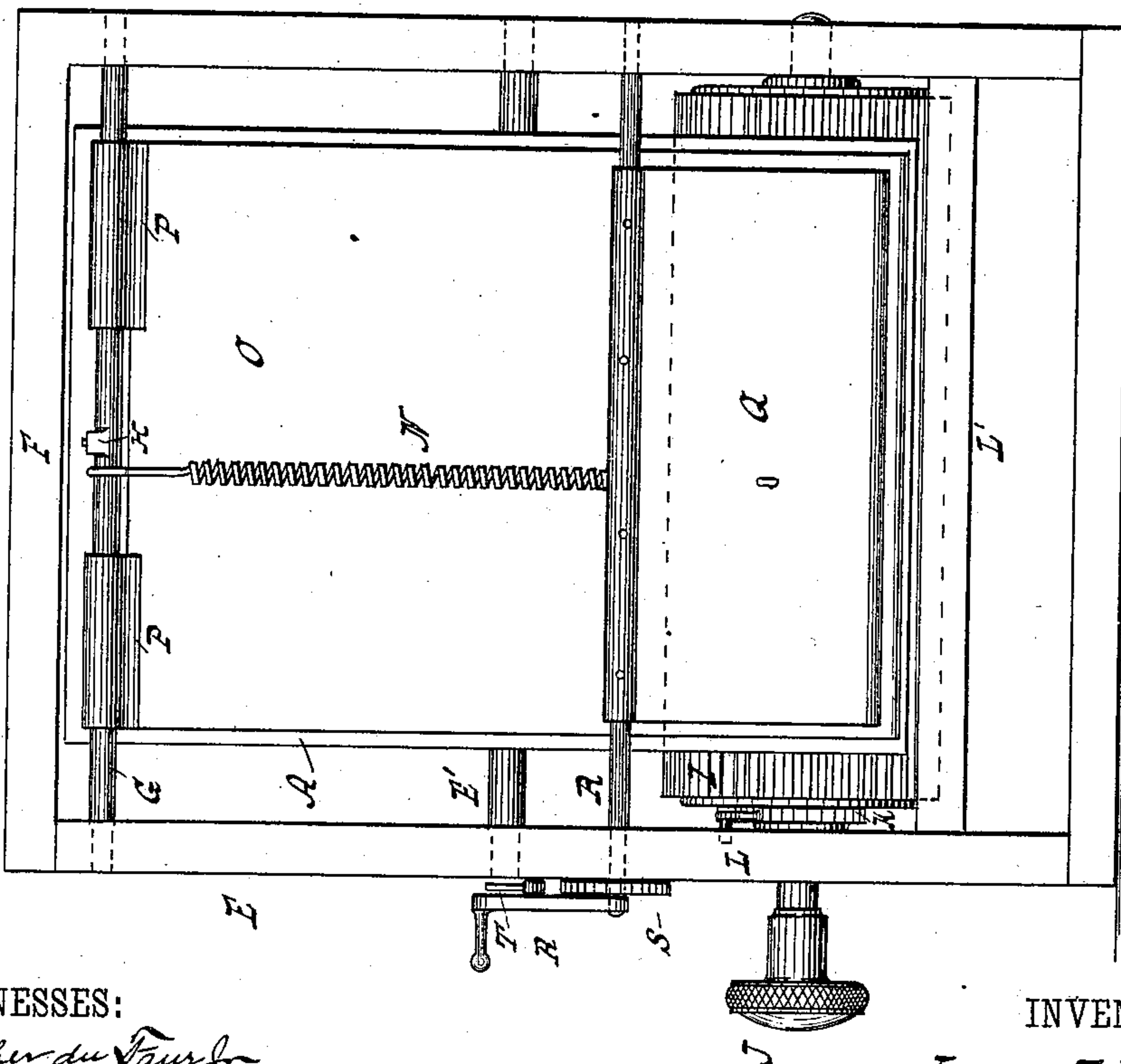


Fig. 3.



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UNITED STATES PATENT OFFICE.

JAMES T. HOYT, OF NEW YORK, N. Y., ASSIGNOR TO EMILY C. HOYT, OF
SAME PLACE.

CABINET FOR SANITARY TOILET-PAPER.

SPECIFICATION forming part of Letters Patent No. 333,073, dated December 22, 1885.

Application filed April 16, 1885. Serial No. 162,477. (No model.)

To all whom it may concern:

Be it known that I, JAMES T. HOYT, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Cabinets for Sanitary or Toilet Paper, of which the following is a specification.

This invention relates to cabinets or receptacles for sanitary or toilet paper; and it consists in an apparatus for holding the paper in sheets and discharging it as wanted without waste. The paper is employed in the condition of sheets of suitable size for sanitary or toilet paper, arranged in a package loosely, containing several hundred or a thousand sheets, (more or less.) Such sheets are generally oblong in shape. Through one end of the package is inserted a bar or rod, (one or more,) on which the package is suspended in the cabinet in such a manner that the sheets can be detached from the package by friction of a roller on the sheets and discharged through the lower part one at a time. The ends of the suspension-bars project from the front and rear sides of the package far enough to enable them to rest upon suitable supports in the cabinet, allowing the free ends of the sheets to hang down therein unconfined. In the lower part of the cabinet is a roller provided with a roughened or corrugated surface, against which the lower ends of the sheets of paper are continually pressed by means of a spring or its equivalent acting against the back part of the package, so that when the roller is turned in the proper direction it will by means of frictional contact pull the sheet of paper which is next to it downward, tearing it off the suspension-bar, and discharging it through the bottom of the cabinet, which has an opening below or under the roller for that purpose. In this manner as many successive sheets are detached singly from the suspended package as are desired, and no waste occurs from an excessive supply.

The apparatus can be made simply of an open frame, which will sustain the necessary parts, or can be made of a closed box and of an ornamental character.

One of the objects of my invention is to supply sanitary or toilet paper for individual use

readily and freely and in a convenient manner and without much expense.

Another object is to avoid the waste which commonly attends the use of such paper.

Another object is to keep the paper out of sight, being concealed in the cabinet until wanted.

In the drawings, Figure 1 is a front view of my improved cabinet, the front being removed. Fig. 2 is a vertical section in the line *xx* of Fig. 1. Fig. 3 is a rear view, the back of the cabinet being removed. Fig. 4 is a separate view of the ratchet-wheel and detent of the corrugated roller. Fig. 5 is a face view, and Fig. 6 a side view of a package of paper.

Similar letters indicate corresponding parts.

In carrying out my invention I make use of sanitary or toilet paper cut into sheets of suitable dimensions and arrange them in packages containing several hundred or a thousand sheets together, (more or less.) The letter *A* designates such a package. These several sheets of the package are loose and independent of each other. Through the upper end of the package, at about the middle of its width, I make a slit or perforation, *B*, in which I place a suspension bar or rod, *C*, whose ends *D D* project from the front and back of the package far enough to allow them to be used for suspending the paper in the apparatus. I prefer the bar *C* to be flat.

The letter *E* designates the cabinet which holds the paper. I do not restrict myself to any particular form or style for its construction, nor to any particular dimensions or materials. In this example I have shown it as composed of a frame, *E*, the top of which is provided with a hinged door, *F*, through which I insert the paper. *E'* is a strengthening-rod extending across the frame.

In the upper part of the cabinet are two permanent bars, *G G*, extending across its interior at suitable distances apart to permit the entrance between them of the package of paper. These bars have sockets *H H* in them at about the middle of their length, which receive the ends of the suspension-bar *C*.

In the lower front part of the cabinet is a roller, *I*, made fast on its axis, which turns in

bearings in the sides of the cabinet. One end of its axis projects through the side and is provided with a handle, J, by means of which the roller can be turned by the hand.

5 The arrow in Fig. 2 indicates the direction of rotation of the roller. It is prevented from being turned in the contrary direction by means of a ratchet-wheel, K, secured upon it, which is engaged by a detent, L. (See Figs. 10 1 and 3.) The ratchet and detent are shown separately in Fig. 4. The roller may, if desired, be made loose on its axis, and the axis be provided with a pawl engaging ratchet-teeth on the roller, so arranged that when the 15 axis is turned in the proper direction it will communicate motion to the roller, and when turned in the opposite direction its pawl will slip over the ratchet and the roller will not be turned. The roller I is provided with a rough- 20 ened or corrugated surface. Its surface may consist of corrugated rubber or sand-paper or other suitable material secured to the circumference of the roller; but I do not confine myself to any particular material or method for 25 providing a suitable roughened or corrugated surface for the roller. The lower free ends of the body of paper extend down behind the roller I, against which they are constantly pressed, and thus its surface is enabled by 30 means of frictional contact with the front sheet, when the roller is turned in the direction of the arrow, to strip off from the package and pull down the front sheet of the package A, severing the upper part of the sheet above 35 the slit B upon the bar C, and so on for successive sheets, and delivering the sheets successively upon the inclined smooth surface L', over which it passes to the opening M in the lower front part of the cabinet below the level 40 of the roller. The incline L' extends from beneath the body of paper under the roller to the place of discharge M.

Fig. 2 represents a sheet which has been drawn down by the roller and is being fed 45 over the incline L' and through the mouth M.

The pressure upon the paper which presses its free ends against the face of the roller is produced in this example by the action of a spring, N, as follows: A plate, O, about the 50 same dimensions in length and width as the sheets of paper, is suspended by ears P P from the rear one of the bars G, so that it can swing thereon. From the center of said bar G is suspended a spiral spring, N, whose lower end is secured to the lower part of a plate, Q, which 55 is rigidly secured to a shaft, R, whose ends rest in the sides of the cabinet, and one of whose ends extends through the same and is provided with a crank, R', and a ratchet, S, and detent T, so that the shaft R can be turned 60 and the plate Q moved back when fresh paper is to be placed in the cabinet. The plate Q is drawn by the spring N against the swinging plate O, which is thus pressed continually 65 against the lower ends of the paper A, and they in turn pressed against the roller I, so that the paper is continually fed to the roller,

and the roughened surface is ready as soon as one sheet is delivered to act on the next sheet.

70 When a fresh package of paper is to be placed in the cabinet, the plate O is relieved from the pressure by means of the crank R', which is operated so as to turn the shaft R against the tension of spring N and bring the 75 plate Q to the position shown in dotted outline in Fig. 2, when the plate O swings freely on the bar and allows a fresh package of paper to be inserted between it and the roller I, the ratchet S and detent T holding the shaft R sta- 80 tionary meanwhile. When the detent T is withdrawn, the crank R' and shaft R are released, and the plate Q is again drawn by the spring against the plate O.

The packages A are prepared beforehand 85 for use in the cabinet, the sheets being cut into the required size or sizes and supplied with bars C, of zinc or other soft metal, so that their ends can be bent down against the sides of the package to enable the packages to be trans- 90 ported without displacing the bars. When one desires to place such a package in the cabinet, it is only necessary to straighten out the bent ends of the bar, when the package is ready for use. I also provide caps U for the 95 packages for the better securing of the suspension-bars C while the packages are being transported, and also for the more convenient handling of the packages. The caps can be made of paper or thin metal, or any suitable 100 material, and perforated to receive the bars C, whose ends can be bent down, as above explained, against the sides of the caps. If the caps are kept on the packages when the latter are placed in the cabinet, care must be taken 105 that they do not press the paper, as in that case the sheets might resist the pull of the friction-roller I.

The friction-roller I may be of any suitable size, and if it is desired to give its surface a 110 high speed, so as to cause the sheets of paper to be delivered very fast, gear-wheels may be employed in connection therewith.

I do not restrict myself to the arrangement of the paper and roller I with reference to each 115 other, which is shown in the drawings, as they may be arranged so that the sheets of paper shall be in a horizontal or other position, and their free ends be pressed against the roller either in an upward or downward direction 120 with substantially similar results.

I have here shown only one suspension-bar, C; but more than one can be employed, if desired. When more than one is used, they are inserted in slits arranged at about equal distances from 125 each other and from the sides of the package.

The shape and number of the suspension-bars and the location of the slits B in the paper can be varied as occasion requires, so as 130 to cause the several sheets to be retained on the bars until pulled off by the feed-roller I. I do not, however, confine myself to a bar or rod, C, as the means for suspending or retaining the sheets of the packages, as the sheets

may be suspended and retained in place by a cord or thread, one or more, inserted through their upper edges, or any other device which will hold and suspend the package of sheets by one end, leaving their lower ends free, and so that the several sheets can be separately stripped from the package by the feed-roller and delivered one by one, as described.

The bar C may be of increasing thickness toward its rear end, so that the sheets at that end will be less readily stripped from the bar, and the increased action of the spring and roller when the sheets are few in number be thereby compensated by increased resistance on the part of the paper.

The package of paper herein shown and described, consisting of the series of sheets provided with the cap U, and the suspension bar or rod passing through an opening in the package, the ends of the bar or rod projecting in front and rear, and adapted to be bent down during transportation and outwardly to serve in suspending the package when in use, is not claimed herein, as the same will be made the subject-matter of a separate application for Letters Patent.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, substantially as shown and described, of a cabinet or case, the friction-roller I, and the pressure-plates O and Q, and spring N, or their equivalents, for pressing the lower ends of sheets of paper against the roller.

2. In a cabinet or case, the combination, with the swinging plate O, suspended from

near the top of said case and extending down to near the bottom thereof, of the swinging plate Q, the lower end of which bears against the lower end of plate O, and the spring N, having one end connected with the plate Q, so as to force the package of sheets placed in front of plate O up against the separating device, substantially as described.

3. A cabinet, E, for toilet-paper, provided with a door, F, for inserting the paper, a mouth, M, and incline L, for discharging the sheets, in combination with a roller, I, for separating the sheets one by one from the package of sheets of paper, and a pressing device for forcing the sheets against the roller, substantially as shown and described.

4. The combination, with a cabinet or case, of a bar or rod, C, for suspending a package of sheets of paper, the cap U, the two bars G, G, and the sockets H H thereof receiving the ends of the suspension-bar C, substantially as and for the purpose described.

5. The combination of a cabinet or case for containing a suspended package of sheets of paper, a friction-roller for detaching the sheets from the package, and a pressure-plate for pressing the package toward the roller, substantially as described.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

JAMES T. HOYT. [L. S.]

Witnesses:

WILLIAM MILLER,
E. F. KASTENHUBER.