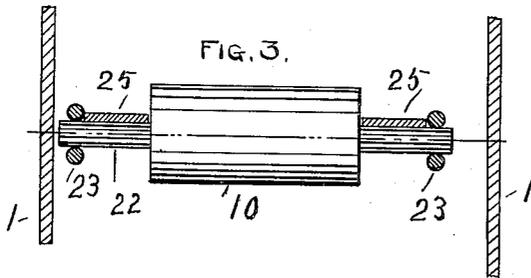
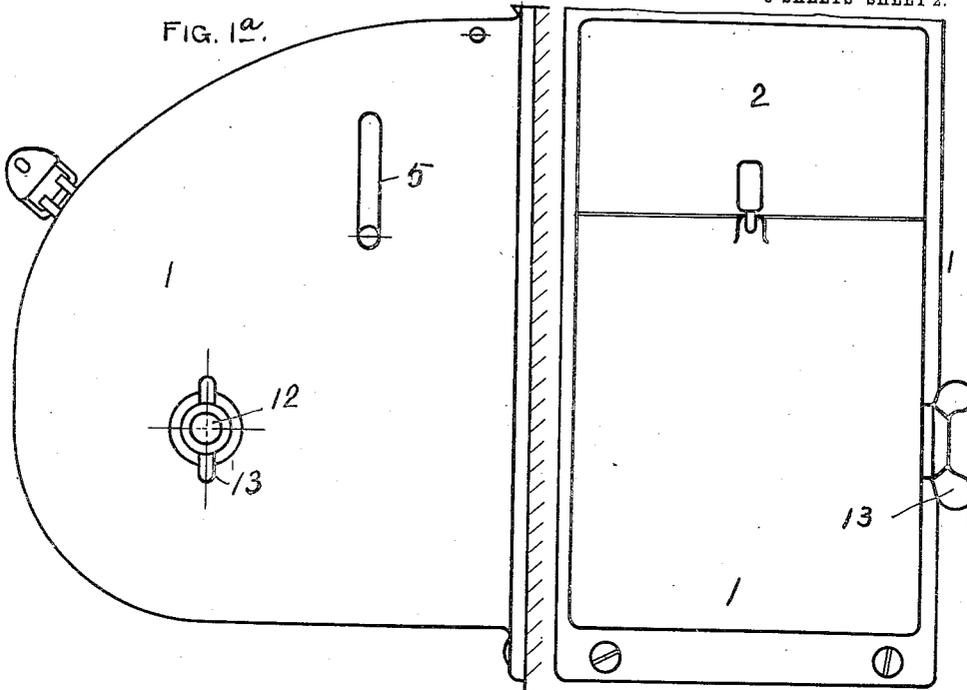


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HOLDER FOR ROLL TOILET PAPER.
APPLICATION FILED JUNE 19, 1909.

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Patented Nov. 29, 1910.

3 SHEETS—SHEET 2.



WITNESSES

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J. H. McEachron.

INVENTORS

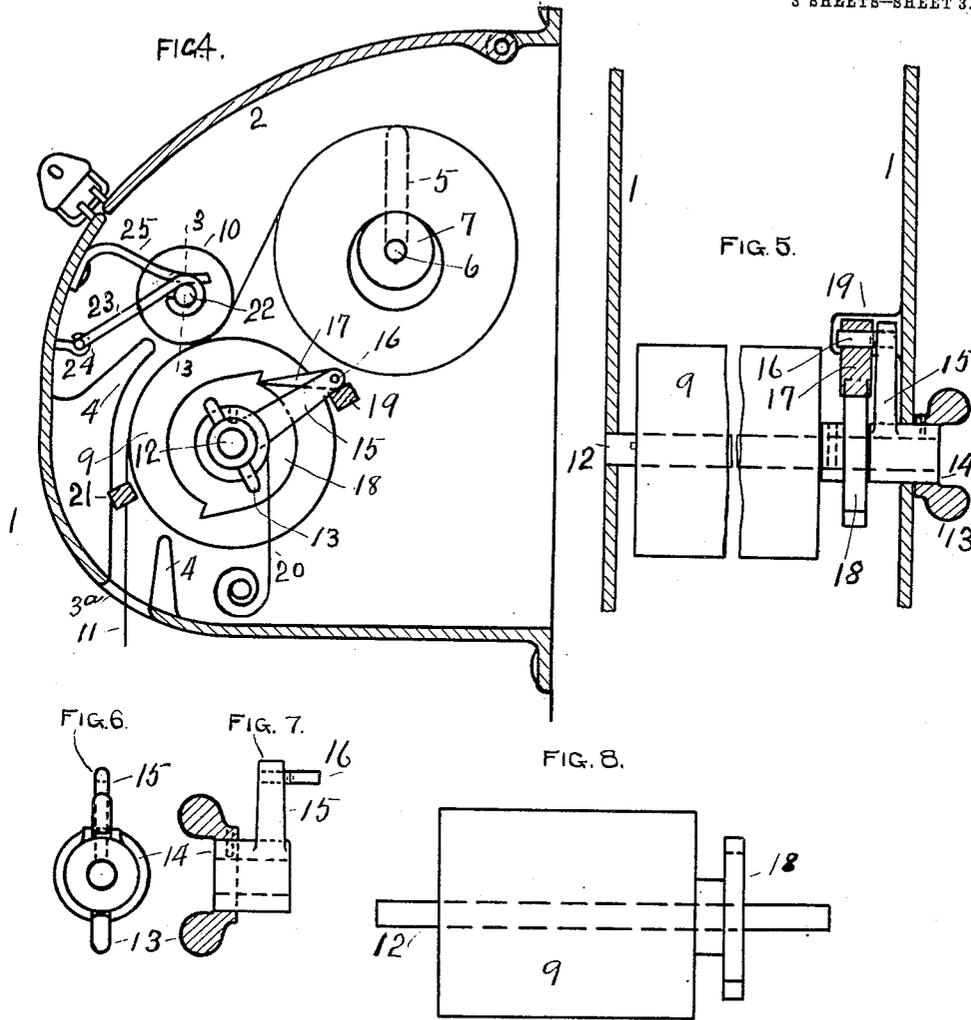
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UNITED STATES PATENT OFFICE.

ARTHUR B. McEACHRON, OF WEST DE PERE, WISCONSIN, AND EDGAR JAMES
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HOLDER FOR ROLL TOILET-PAPER.

977,418.

Specification of Letters Patent. Patented Nov. 29, 1910.

Application filed June 19, 1909. Serial No. 503,244.

To all whom it may concern:

Be it known that we, ARTHUR B. McEACHRON and EDGAR J. McEACHRON, residents of West De Pere, county of Brown, Wisconsin, and Rochester, in the county of Monroe and State of New York, respectively, have invented certain new and useful Improvements in Holders for Roll Toilet-Paper; and we 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 pertains to make and use the same.

This invention relates to delivering apparatus for toilet paper, and particularly to that class delivering paper from rolls rather than from separate sheets.

The object of the invention is to provide simple, efficient and improved means for supplying to a user one sheet or piece of paper only at a time, thus making a distinct operation necessary for obtaining each piece.

The invention consists in the construction hereinafter described and particularly pointed out.

In the accompanying drawing which illustrates the invention and forms part of the specification,—Figure 1 is an end elevation of the preferred form of the apparatus, the casing being in section; Figs. 1^a and 2 are respectively end and front elevations of the inclosing case of a modified form; Fig. 3 is a partial vertical section on line 3, 3 of Fig. 1, or of Fig. 4; Fig. 4 is an end view of the apparatus of Fig. 1^a, the casing being in section; Fig. 5 shows a side view of the lower feed roll and feeding devices, the casing, the handle, and the pawl being in section; Fig. 6 is an end view of a handle, and Fig. 7 is a side view thereof partly in section; Fig. 8 is an elevation of a lower feed roll and its ratchet wheel.

Numeral 1 denotes a metal or other suitable casing adapted to be supported on a wall or the like, and having a hinged cover 2, provided with any suitable lock, as a pad lock.

3 denotes an opening at the bottom of the casing through which paper torn from the roll may be removed.

4 denotes a flange to direct the paper toward the opening.

Near its top the casing has slots 5 which form bearings for the spindle 6 of a wood or

other roller 7 which supports a roll of toilet paper.

Below the paper roll is a paper-feed roll, made of wood or the like, and numbered 9, and an upper, cooperating roll 10 of metal or other suitable material, between which rolls the paper 11 from the paper roll is passed. Roll 9 is supported from the casing by a spindle 12 having thereon, outside the casing, an operating handle 13, to which is fixed a sleeve 14 having a radial arm 15, carrying the pivot 16 of a pawl 17. The latter engages one or the other of the teeth of a disk or wheel 18. Arm 15 normally rests against a stop 19, supported by the casing in the manner shown in a slightly modified apparatus in Fig. 5, being held to that position by a spring 20, one end of which has a fixed support, and the other end of which is secured to the sleeve 14.

21 is a stop supported from the casing wall to limit the forward movement of arm 15.

It should be understood that although stops 19 and 21 are shown in Fig. 1 (and also in Fig. 4) they are in fact a part of the front removed part of the casing, and are indicated in said figures to more clearly show their position in relation to arm 15 and wheel 18.

Preferably the spindle 22 of roll 10 is supported by wire arms 23, one end of each of which is bent around said spindle, and the other end movably supported in eyes 24, whereby roll 10 rests by gravity against the paper 11 where it bears on the roll 9, and may also be pressed downward by springs 25. In some cases parts 25 may be so adjusted as to act merely as stops to prevent backward movement of the roller when the apparatus is being handled.

Fixed to drum or roll 9, mediately or immediately, at one end is a gear wheel 26 meshing with wheel 27 which transfers motion to wheel 28, and this to wheel 29, the spindles of all the wheels having suitable bearings, preferably in the walls of the casing.

Driven by wheels 28, 29 are arms or wings 30, which as their gears are turned clamp the paper 11 between them, as shown. The several parts, that is, the drum or roll 9, the gearing, and the wings 30, are so proportioned that the wings 30 as they turn and

grasp the paper in advance of the feed rolls, will have a greater speed at the clamping ends, than the surface speed of the feed roll 9, and consequently they will exert a tension on the paper to tear it from the roll before the feeding action of the feed roll and handle ceases and preferably at places where the paper is weakened by transverse series of perforations or slits, as common with such paper.

When handle 13 is turned to the left as far as it can go the paper 11 is pulled forward the required distance, and as this is done the clamping arms or wings 30, which are preferably as long transversely as the width of the paper, tear the paper by a sudden pull and drop the piece thus torn into the bottom of the casing, from which it can be taken through opening 3. When the user releases the handle spring 20 carries the pawl arm back against stop 19 ready for another operation.

Although wheel 18 is shown with but two teeth for the pawl to operate on, the invention is not limited to the use of this particular number. By omitting spring 20 and stops 19 and 21, wheel 18 could have ratchet teeth all around its periphery, and the handle be moved always in the forward direction, one sheet being torn off at each operation by the pull of arms 30, as above described.

In some cases it is proposed to omit the mechanical means for tearing off the paper advanced, and to tear off such paper by hand. This construction is shown in Figs. 1^a, 2, 4, 5 and 8, and in part also in Figs. 3, 6 and 7, described in connection with Fig. 1.

The casing of the modified apparatus has a cover 2 and slots 5, as above described. The opening 3^a is in this case located so that the paper 11 as it is fed forward passes down through it, where it can be grasped by the hand and torn off. The rolls and operating devices are the same in construction and operation as those in Fig. 1.

Having thus described the invention what we claim is,—

1. In a device of the character described, the combination with means for advancing paper from a roll comprising a feed-roll and cooperating means adapted to continuously clamp the paper, a spindle for said feed-roll, and a handle on the feed-roll spindle, of rotary paper-clamping members acting intermittently on the advanced paper

in the same direction as and more rapidly than the feed-roll, and a stop for the paper feed, whereby the advanced paper will be torn off.

2. In a device of the character described, the combination of a paper-roll support, a feed-roll, a spindle therefor, a handle, a pawl and ratchet between the handle and feed-roll for turning the latter, two pairs of paper-clamping members one pair in advance of the other, said advance pair acting intermittently on the paper and in the same direction as the feed roll and at a greater speed than the other pair, and means between said handle on the feed-roll spindle and said members for turning them.

3. In a device of the character described, the combination with a paper-roll support, a feed-roll, a spindle therefor, a handle loosely sleeved on the spindle, a toothed ratchet wheel and a separate gear wheel both on said spindle and fixed to move with the feed roll, a pawl moved by the handle and engaging said ratchet wheel, a returning spring for returning the pawl after operation, rotary paper-clamping members each comprising a gear wheel, and a pinion between one of the latter gear wheels and the gear wheel on the feed-roll spindle.

4. In a device of the character described; the combination with means for advancing paper from a roll comprising a feed-roll and a cooperating roll, the feed roll and the cooperating roll having cylindrical surfaces adapted to continuously clamp the paper to feed it, a spindle for said feed-roll, and a handle for the spindle, of rotary paper-tearing members in advance of said rolls and acting on the paper intermittently in the same direction as the feed-roll, and speed-increasing driving means between said handle and the operating part of the tearing members.

In testimony whereof, we have signed this specification in the presence of two subscribing witnesses.

ARTHUR B. McEACHRON.

EDGAR JAMES McEACHRON.

Witnesses to signature of Arthur B. McEachron:

M. J. MAES,

E. M. EBERHARDT.

Witnesses to signature of Edgar James McEachron:

J. C. SETCHEL,

L. B. WHIPPLE.