H. D. WOOD.

TOILET PAPER HOLDER.

APPLICATION FILED MAR. 17, 1914.

1,112,512. Patented Oct. 6, 1914.

FIG. 1.

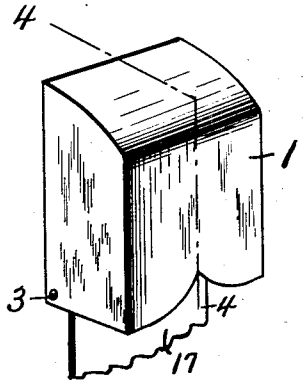


FIG. 2.

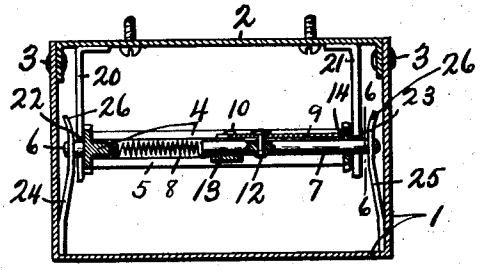


FIG. 3.

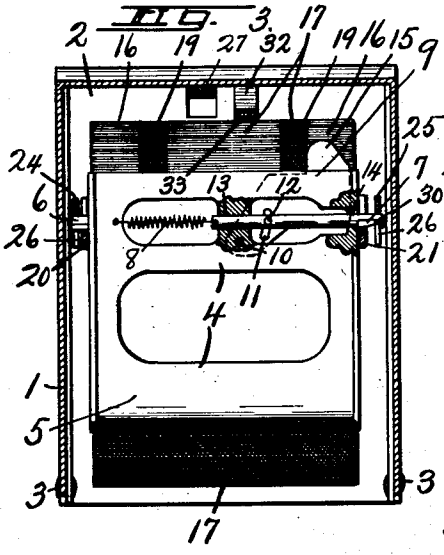


FIG. 4.

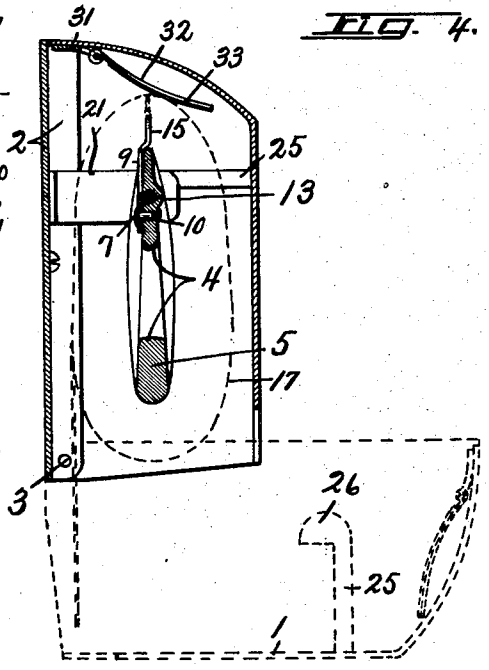


FIG. 5.

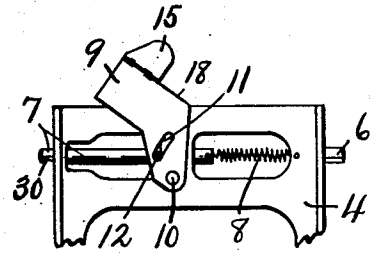


FIG. 6.

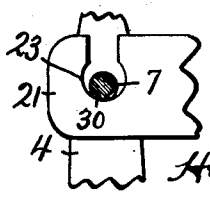
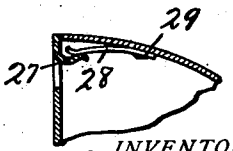


FIG. 7.



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TOILET-PAPER HOLDER.

1,112,512. Specification of Letters Patent. Patented Oct. 6, 1914.

Application filed March 17, 1914. Serial No. 825,211.

To all whom it may concern:

Be it known that I, HERBERT D. WOOD, of Phoenix, in the county of Oswego, in the State of New York, have invented new and useful Improvements in Toilet-Paper Holders, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to certain improvements in toilet paper holders involving a supporting inclosing case adapted to be secured to a wall and a supporting flat paper reel journaled in a horizontal position within the case and counter-weighted to assume an edge-wise position vertically so that the toilet paper, which is slit or cut transversely at intervals from its opposite longitudinal edges, may be supported in a similar position with its free end hanging vertically from the reel preferably at the rear side thereof. For use in connection with the holder hereinafter described, the transverse slits in the paper occur at regular intervals so as to always appear at the top edge of the reel and the outside sheet has a loose end hanging below the inclosing case in position to be grasped by the fingers of the operator.

The primary object of the invention is to provide the inclosing case with a movable door or closure, in this instance a movable rear wall, adapted to be locked in closed position by means operating in connection with the reel, until all the paper has been used from the reel, so that the paper cannot be removed except sheet by sheet until the entire roll is used at which time the locking means is automatically released. It is well known that in connection with toilet paper holders embodying an inclosing case open at the lower side, very often the loose end of the sheet is not disengaged from the body of the roll but remains in contact therewith and does not fall below the inclosing case so that it is adapted to be grasped by the operator, rendering the use of this form of holder very objectionable.

A further object of my invention resides in overcoming this objectionable feature by providing means for positively and automatically feeding the loose end of the sheet downward between the roll and the inclosing case so that it falls below and projects from the case.

Other objects relate to the particular construction, formation and arrangement of the parts hereinafter described in connection with the accompanying drawings, in which—

Figure 1 is a perspective view of the device. Fig. 2 is a horizontal cross section through the inclosing case and the reel. Fig. 3 is a vertical cross section through the inclosing case and the paper roll, and showing the reel partially in section. Fig. 4 is a cross section on line 4—4, Fig. 1. Fig. 5 is a view of a portion of the reel, showing the manner of operating the movable journal. Fig. 6 is a cross section on line 6—6, Fig. 2. Fig. 7 shows the supplementary means for holding the movable closure in its closed position.

The invention comprises an inclosing case —1— provided with a rear door or closure —2— pivoted at its lower edge at —3— to the case —1— to swing outwardly therefrom and allow the insertion and removal of a paper receiving reel —4—. This reel is preferably a casting formed with a counter-weighted portion —5— adapted to normally hold the reel in its vertical edgewise position and to return it to that position after each rocking or tilting movement.

The reel —4— is provided with a rigid journal —6— projecting from one end thereof and a movable journal —7— projecting from the other end, and spring tensioned inwardly toward the journal —6— by a spring —8— attached to a portion of the reel —4— and the adjacent end of the journal —7—.

A lever —9— is pivoted at —10— to the reel —4— and has a transverse slot —11— within which a pin —12— extending through the journal —7—, is movably seated and the slot —11— is so positioned and shaped that movement of the lever —9— counter-clockwise about its pivot —10— has a cam action on the pin —12— to force the journal outwardly from the reel —4— against the action of the spring —8—. And the pin —12— operates in connection with the bearing —13— to prevent endwise movement of the journal —7— inwardly beyond a predetermined point. The journal —7— has two bearings, the bearing —13— upon the central portion of the reel —4— and the bearing —14— in one end thereof so that although the journal —7— is endwise movable it is not axially movable.

The lever —9— is provided with a pro-

jecting ear —15— and adapted to extend upwardly from the reel —4— when the lever —9— has forced the journal —7— outwardly the predetermined distance as limited by the length of the slot —11— and lies in a slit portion —16— of the sheets of a paper roll —17—, and preferably this paper roll is provided with end slits and a central slit, leaving the sheets connected at two points only, but any desired arrangement of the slits and integral portion may be used so long as a slit is provided adapted to receive the ear —15— and in such a manner that the adjacent flat portion —18— of the lever —9— is disposed in substantial parallelism with the top of the reel —4— and bears against an integral portion —19— of the paper sheets.

The door or closure —2— is provided with a pair of projecting arms —20— and —21— spaced apart a sufficient distance to receive the reel —4— between them, and provided with bearings —22— and —23— for the reception of the journals —6— and —7—, and the case —1— is provided with a pair of resilient curved catch plates —24— and —25— disposed upon opposite sides thereof and having jaws —26— for engagement with the journals —6— and —7—, respectively, so that when these jaws are in engagement with the journals the movable closure —2— is locked against opening. This closure or door is provided with a supplementary locking means comprising a struck-up lug —27— extending inwardly of the case —1— and adapted to be engaged by a spring tongue —28— attached at one end as —29— to the case —1—. Preferably, the journal —7— is provided with a notched portion —30— adjacent its outer end and adapted to engage the journal —23— when all of the paper has been removed from the reel, to prevent release of the reel from its bearings, until the reel has been slightly lifted by hand.

For the purpose of disengaging and kicking off the loose end of each successive sheet of paper from the rest of the roll so that the end will fall below and project from the case, a supporting link —31— is attached to the top of the case —1— and a swinging arm —32— is pivoted to this link and rests upon the top edge of the paper roll preferably just forward of the slits, and this arm has a roughened lower surface or may have, as shown, attached thereto a piece of sand-paper or other friction member —33— which is adapted to contact with the paper, and as the roll rocks or tilts due to the tearing off of a sheet by an operator, this member engages the loose end of the next sheet and kicks it off from the roll.

The operation of the device will be readily understood as follows: The paper roll —17— is forced with a sliding engagement upon the reel —4—, with the reel in the position shown in Fig. 5, the roll sliding from right to left so that the ear —15— seats itself in the end slot —16— of the paper roll and the edge —18— of the lever —9— engages the integral portion —19— of the roll and locks the journal —7— in its outward or extended position from the reel —4—. The journals —6— and —7— are then placed in their respective bearings —22— and —23— when the door or closure —2— is open. The door is then forced to closed position so that the bearings —6— and —7— engage the inner sides of the out-turned portions of the catch plates —24— and —25— respectively, and forces the plates outwardly to an extent allowing the journals to pass the jaws —26—, at which time the catch plates again spring inwardly and the jaws —26— engage the journals —6— and —7— and prevent rearward movement of the journals, the arms —20— and —21— and the closure —2—, whereby the door —2— is locked in its closed position until the journals —6— and —7— are released from engagement with the jaws —26—. As each successive sheet of paper is torn off by the operator the reel is necessarily rocked or tilted about its pivot in the bearings —22— and —23—, and as the reel rocks backwardly the succeeding sheet is engaged by the roughened face portion of the arm —32— and is kicked off from the roll and drops downwardly between the roll and the case so that it projects from the lower open side of the case in position to be grasped by the operator. When the paper has all been removed from the roll, the spring —8— draws the journal —7— inwardly and rocks the lever —9— upwardly, releasing the journal —7— from engagement with the jaw —26— of the catch plate —25— and the reel may be shifted laterally a sufficient distance so that the journal —6— will be released from the adjacent jaw —26— upon the catch plate —24—, and the door —2— may then be swung outwardly carrying the reel with it, the notch —30— preventing the spring —8— from drawing the journal —7— inwardly a sufficient distance so that the reel would be entirely released from its bearings. The supplementary locking means formed by the lug —27— and the tongue —28— is merely a resilient one and the opening formed by striking up the lug —27— affords a means for grasping the door —2— to open it.

It will now be apparent that although I have illustrated and described a particular form of device, that many changes may be made in the details of construction and

operation without departing from the spirit of this invention as set forth in the appended claims.

I claim:

1. A toilet paper holder comprising a case having a movable closure, a paper reel having journals upon opposite sides thereof and means operating in connection with said journals for locking said closure.

2. A toilet paper holder comprising a case having a movable closure, a paper reel having journals upon opposite sides thereof and means in connection with the closure and adapted to engage said journals for locking said closure.

3. A toilet paper holder comprising a case having a movable closure, a paper reel mounted therein, and means in connection with the reel for locking said closure until the paper is removed from the reel.

4. A toilet paper holder comprising a case having a movable closure, a paper reel having journals thereon, bearings in connection with said movable closure for receiving said journals, and jaws in said case adapted to engage said journals.

5. A toilet paper holder comprising a case having a movable closure, a paper reel having journals thereon, bearings in connection with said movable closure for receiving said journals, and movable jaws in said case adapted to engage said journals upon the outside of said bearings.

6. A toilet paper holder comprising a case having a movable closure, a paper reel having journals thereon, bearings in connection with said movable closure for receiving said journals, jaws in said case adapted to engage said journals, and means for automatically releasing said journals from engaging with said jaws when the paper is removed from the reel.

7. A toilet paper holder comprising a case having a movable closure, a paper reel mounted therein, means in connection with the reel for locking said closure until the paper is removed from the reel, and means for automatically releasing the locking means when the paper is removed from the reel.

8. In a toilet paper holder, a reel having an endwise movable, spring retracted journal.

9. In a toilet paper holder, a reel having a spring retracted movable journal, and means for holding said journal in its extended position.

10. In a toilet paper holder, a reel having an endwise movable journal and a lever for holding said movable journal in its extended position.

11. In a toilet paper holder, a reel having an endwise movable journal and a lever engaged by the paper roll for holding said movable journal in its extended position.

12. In a toilet paper holder, a reel having an endwise movable journal, a lever having an ear adapted to be disposed in a slit in a paper roll mounted on said reel, and a substantially straight portion engaging an integral section of paper roll for holding said movable journal in its extended position.

13. In a toilet paper holder a case, a reel mounted in said case and adapted to receive a paper roll and a pivoted arm adapted to bear upon the upper surface of the loose end of each succeeding sheet and disengage this end from the paper roll.

14. In a toilet paper holder a case, a reel mounted in said case and adapted to receive a paper roll and a pivoted arm adapted to bear upon the upper surface of the loose end of each succeeding sheet and kick off the loose end so that it falls below and projects from the case.

15. In a toilet paper holder a pivoted reel adapted to receive a paper roll and to have a rocking movement due to each disengagement of paper from the roll and a member adapted to bear upon the surface of such paper roll and operating to throw off the loose end of each succeeding sheet in connection with the rocking movement of the reel caused by the disengagement of the former sheet.

16. In a toilet paper holder a case a reel pivotally mounted in said case and adapted to receive a paper roll, a member mounted in the case and adapted to bear upon the upper surface of the loose end of each succeeding sheet.

17. In a toilet paper holder, a reel having an endwise movable journal and means adapted to be engaged by a roll of paper positioned upon the reel for holding said journal in its extended position.

18. In a toilet paper holder, a pivoted arm adapted to bear upon the upper surface of a roll of paper at the rear of the transverse slits or perforations therein and kick off the loose end of each succeeding sheet.

19. In a toilet paper holder, a pivoted arm having a roughened face adapted to bear upon the surface of a roll of paper at the rear of the transverse slits or perforations therein.

20. A toilet paper holder comprising a case having a movable closure, a paper reel having journals thereon, bearings in connection with the movable closure for receiving the journals and additional bearings within the case for receiving said journals.

21. A toilet paper holder comprising a case having a movable closure, a paper reel having journals thereon, bearings in connection with the movable closure for receiving the journals, additional bearings within the case for receiving said journals and means for withdrawing said journals from engagement with said last named bearings.

22. A toilet paper holder comprising a case having a movable closure, a paper reel having journals thereon, bearings in connection with the movable closure for receiving the journals, additional bearings within the case for receiving said journals and means mounted on the reel for withdrawing said journals from engagement with said last named bearings.

23. A toilet paper holder comprising a case having a movable closure, a paper reel mounted therein and means in connection with the closure and adapted to engage the reel for locking closure.

In witness whereof I have hereunto set my hand this 13th day of March, 1914.

HERBERT D. WOOD.

Witnesses:
E. G. HUTCHINSON,
A. W. HAWKES.