May 12, 1925.

1,537,673

N. S. HILLYARD

PAPER ROLL HOLDER

Filed Nov. 26, 1923

Fig. 1.

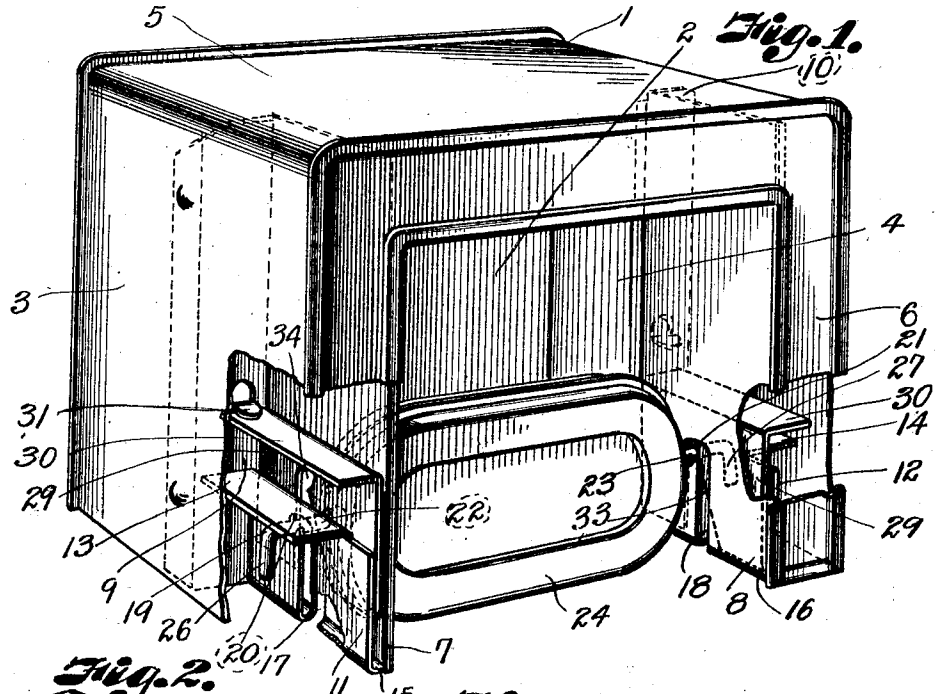


Fig. 2.

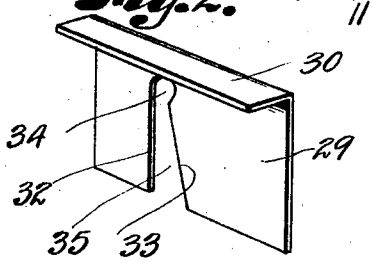


Fig. 3.

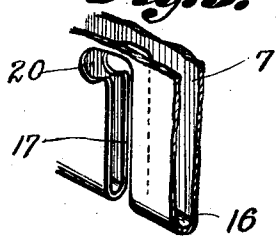


Fig. 5.

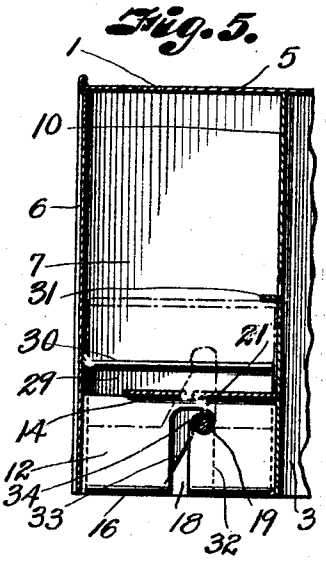
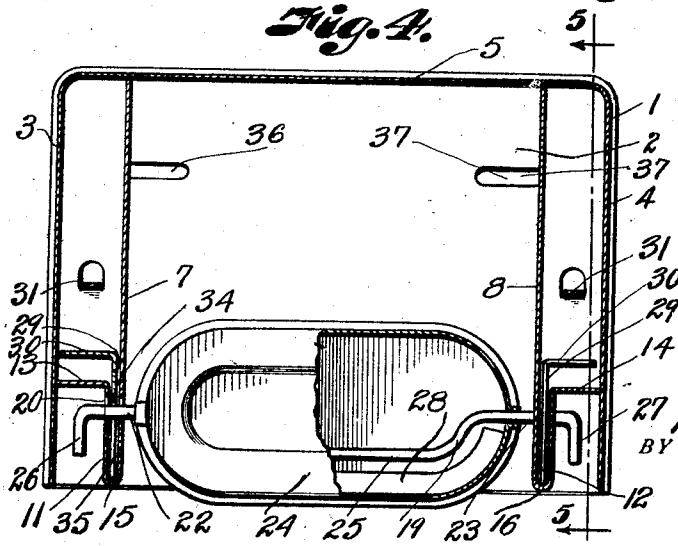


Fig. 4.



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UNITED STATES PATENT OFFICE.

NEWTON S. HILLYARD, OF ST. JOSEPH, MISSOURI.

PAPER-ROLL HOLDER.

Application filed November 26, 1923. Serial No. 676,930.

To all whom it may concern:

Be it known that I, NEWTON S. HILLYARD, a citizen of the United States, residing at St. Joseph, in the county of Buchanan and State of Missouri, have invented certain new and useful Improvements in Paper-Roll Holders; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to paper roll holders and the primary object is to provide a paper roll holder for dispensing paper from a roll. The invention contemplates the provision of a core or mandrel adapted to receive the paper roll and a housing bracket for supporting the core in a manner to prevent its accidental displacement but so that the core may be conveniently removed for the purpose of receiving a new roll when the paper from the previous roll has been exhausted.

The core preferably consists of a member substantially elliptical in cross section, that is it has sides wider than the edges and it consists of the elliptical casing loosely mounted on a shaft, the casing having overbalanced weight to cause the casing to swing back to normal position each time it is swung about its axis by a pull of the paper on the roll. The shaft upon which the casing is mounted is removably secured in the housing bracket in such a manner that it cannot be accidentally displaced.

The novelty of the invention will be clearly apparent by reference to the following description in connection with the accompanying drawings, in which:

Fig. 1 is a perspective view of a device constructed in accordance with my invention, parts being broken away to better illustrate other parts.

Fig. 2 is a detailed perspective view of one of the end locking plates for securing the shaft for the paper core in place.

Fig. 3 is a fragmentary perspective view of part of one end of the housing bracket showing the journal notch for supporting the shaft.

Fig. 4 is a horizontal cross sectional view through the housing and through part of the core, and

Fig. 5 is a sectional view on the line 5—5 of Fig. 4.

Referring now to the drawings,

1 designates a substantially rectangular housing bracket consisting of the back wall 2, end walls 3 and 4 and the top wall 5, the housing being open at the front and the bottom, the front having an inverted U-shaped strip 6 to the inner vertical edges of which are secured bracket plates 7 and 8. The rear edges of the plates 7 and 8 have inturned flanges 9 and 10 of approximately the width of the strip 6, the flanges 9 and 10 being fastened to the sides 3 and 4 by rivets or other suitable fastening means. The plates 7 and 8 have their lower ends bent back upon themselves and then outwardly to form upwardly extending parallel walls 11 and 12 with outstanding stop lips 13 and 14. The parallel walls of the plates 7 and 8 are slitted from the bottom bends 15 and 16 to provide vertical slits 17 and 18 to receive the ends of the shaft 19, the upper ends of the slits having offset notches 20 and 21 which constitute bearings for the journal ends 22 and 23 of the shaft 19. The shaft 19 extends through a hollow flat casing or core 24 which constitutes the paper holder or support and the metal portion of the shaft 19 is offset as at 25 so that if the core 24 is turned the shaft must turn with it and by this means the extent of rotative movement of the core is limited because the extreme ends of the shaft 19 are provided with right angular projecting fingers or cranks 26 and 27 adapted to contact with the stop flanges 13 and 14 and the core is provided at one side with a weight 28 so that it will always swing back to normal position, therefore if a roll of paper is carried by the core and the paper strip is perforated for lengths, each time the end of the paper is pulled, the core will turn a distance sufficient only to unwind a limited amount of paper, the sudden stoppage of the core being effective in causing the sheet to be severed. This particular feature in itself is not new but the construction whereby it is accomplished appears to be novel.

The shaft is introduced into the notches by passing the ends up through the slitted

portions 17 and 18 and then into the bearing notches 20 and 21. In order to eliminate liability of the shaft becoming detached, I provide locking dogs in the form of plates, one of which is shown in detail in Fig. 2. Each locking dog consists of a plate 29 having an outstanding upwardly located flange 30 adapted to contact with a stop projection 31 struck out from the back plate of the housing bracket so that the upward movement of the dog will be limited. Each dog has a slit formed by the straight edge 32 and the inclined edge 33 connected by a curved portion to provide a notch 34 forming an opening 35 substantially like a key-hole slot and this slot registers with one of the slitted portions 17 or 18. The dogs are gravity dogs which tend to gravitate to the bottom of the space between the members 7—11 and 8—12, but since the inclined edges 33 extend diagonally across the slits 17 and 18, it will be apparent that in introducing the journal ends 22 and 23 of the shaft 19 that the journal ends will ride against the edges 33 of the dogs and raise them to the positions shown in the left hand end of Fig. 1 until the shaft engages in the journal notches 20 and 21, then the dogs will drop down to the positions shown in Figs. 4 and 5 locking the shaft 19 against accidental displacement. When the paper has been removed from the core and it is desired to apply a renewal, an instrument can be introduced in the space between the end of the flanges 13 and the front cover plate 6 to engage the flange 30 of the dogs 29 to cause them to move out of locking engagement, then the shaft may be removed. When a roll is placed on the core, the two ends of the shaft will be caused to register with the slits 17 and 18 and by raising the same the holder or core will be secured in place as above described. The housing bracket may be secured to the wall in any suitable manner by suitable fastening devices adapted to pass through openings 36 and 37 of which there may be any suitable number.

It will be apparent that the device is inexpensive to construct, rugged and of easy application and while I have specifically described the particular details of the illustrated embodiment of the invention, I wish it understood that I reserve the right to make changes in form, proportion and minor details of construction without departing from the spirit of the invention or sacrificing any of its advantages.

What I claim and desire to secure by Letters-Patent is:

1. A paper roll holder comprising a bracket, having spaced in walls with vertical slots extending from the bottom edges of the end walls, the upper ends of the slots terminating in offset bearing notches, a core having journals receivable in the notches and removable through the slots and vertically movable dogs, each movable in one position to open the slots and movable in the opposite position to close the slots to hold the journals in the bearing notches.

2. A paper roll holder comprising a bracket, having spaced in walls with vertical slots extending from the bottom edges of the end walls, the upper ends of the slots terminating in offset bearing notches, a core having journals receivable in the notches and removable through the slots and vertically movable dogs, each movable in one position to open the slots and movable in the opposite position to close the slots to hold the journals in the bearing notches, said dogs comprising slotted plates, one edge of each slot in each plate being at an angle to the slot in its complementary end wall.

3. A paper roll holder comprising a bracket, having spaced in walls with vertical slots extending from the bottom edges of the end walls, the upper ends of the slots terminating in offset bearing notches, a core having journals receivable in the notches and removable through the slots and vertically movable dogs, each movable in one position to open the slots and movable in the opposite position to close the slots to hold the journals in the bearing notches, said dogs comprising slotted plates having right angular projecting flanges at their upper edges to be engaged by a tool for raising the plate.

4. A paper roll holder comprising a bracket, having spaced in walls with vertical slots extending from the bottom edges of the end walls, the upper ends of the slots terminating in offset bearing notches, a core having journals receivable in the notches and removable through the slots and vertically movable dogs, each movable in one position to open the slots and movable in the opposite position to close the slots to hold the journals in the bearing notches, said dogs comprising slotted plates having right angular projecting flanges at their upper edges to be engaged by a tool for raising the plate, and stop members carried by the bracket for limiting the upward movement of each plate.

5. A roll paper holder comprising a housing having parallel supporting plates therein, the lower ends of which are bent back upon the plates, the main portions of the plates and the bent back portions having aligning slits with offset bearing notches at their upper ends, a roll core having journals receivable in the bearing notches and insertable through the slits and locking plates in the spaces between the main portions of the plates and the bent back portions, the locking plates having key-hole slots, portions of which are adapted to align with the slits in the supporting plates and

the bent back portions, the edges of the slots in the plates being adapted to close off the slits and means whereby the plates may be operated to open the slits.

6. A roll paper holder comprising a housing bracket having a back wall, end walls and a top wall, the bottom and front of the housing bracket being open, an inverted U-shaped strip carried by the front edges of the top and end walls and extending inwardly in the open space, vertical plates secured to the inverted U-shaped strip and to the end walls, the plates having vertical slits extending from their lower edges, the upper edges of the slits terminating in offset bearing notches, a paper roll core having journals insertable through the slits to engage the bearing notches, right angular projections on the journals, stop members carried by the plates against which the right angular projections may contact to limit the rotative movement of the journals and locking members for securing the journals in the bearing notches.

7. A roll paper holder comprising a housing bracket having a back wall, end walls and a top wall, the bottom and front of the housing bracket being open, an inverted U-shaped strip carried by the front edges of the top and end walls and extending inwardly in the open space, vertical plates secured to the inverted U-shaped strip and to the end walls, the plates having vertical slits extending from their lower edges, the upper edges of the slits terminating in offset bearing notches, a paper roll core having journals insertable through the slits to engage the bearing notches, right angular projections on the journals, stop members carried by the plates against which the right angular projections may contact to limit the rotative movement of the journals and locking members for securing the journals in the bearing notches, said locking members comprising slitted plates having portions movable across the slits in the first named plates below the bearing notches.

In testimony whereof I affix my signature.

NEWTON S. HILLYARD.