Oct. 27, 1925.

1,559,151

L. F. BRASCH

ROLL HOLDER

Filed July 25, 1924

Fig. 1.

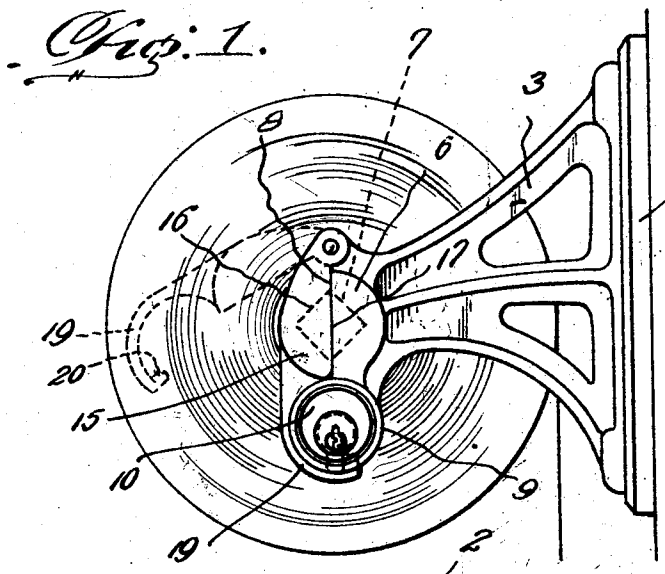


Fig. 4.

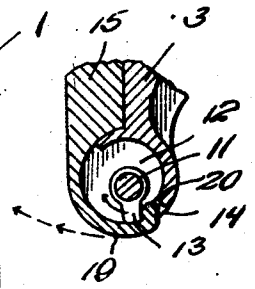


Fig. 2.

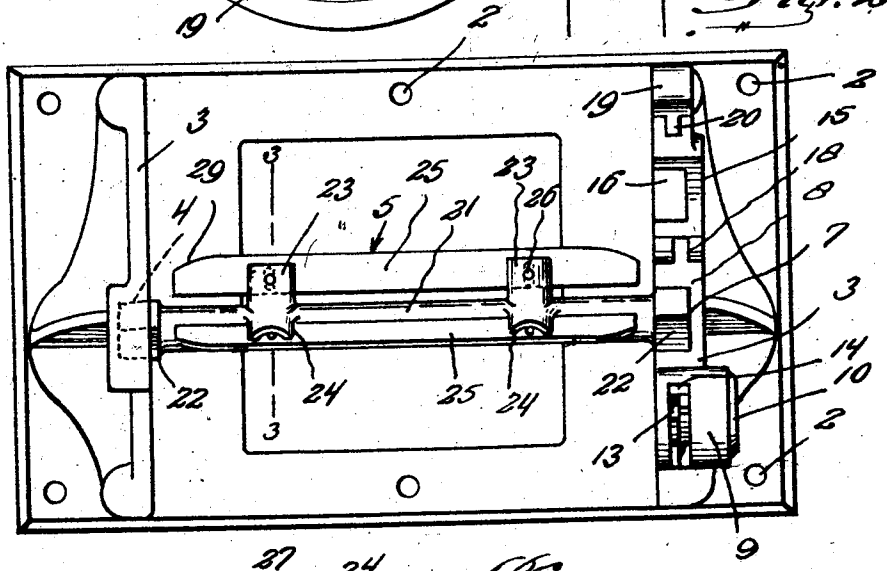
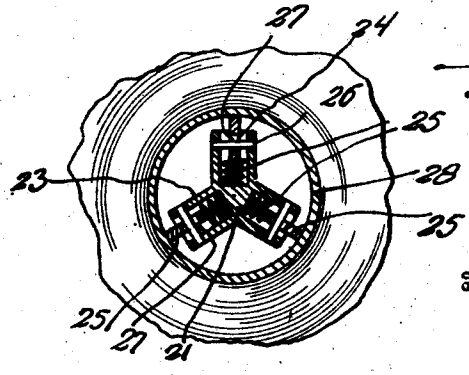


Fig. 3.



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UNITED STATES PATENT OFFICE.

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ROLL HOLDER.

Application filed July 25, 1924. Serial No. 728,165.

To all whom it may concern:

Be it known that I, LOUIS F. BRASCH, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Roll Holders, of which the following is a specification.

This invention relates to improvements in roll holders, and more particularly to roll holders for towels, toilet paper, and the like.

An object of the invention resides in providing a paper roll holder of the character above mentioned, wherein the supporting arms carried by a suitable plate member are formed with sockets for receiving a non-rotatable roll carrying member provided with a plurality of radially projected blades adapted to be inserted in the opening in the central portion of the roll, and normally projected outwardly for engagement with the inner periphery of said roll, for effectively holding the same thereon against rotation, in order to prevent the spinning of the roll and the removal of portions therefrom, which occasions waste in the use of the paper in the roll.

Another object of the invention resides in providing a roll holder of the above mentioned character, wherein a roll carrying member is mounted in a pair of spaced supporting arms and nonrotatable relative thereto, said roll carrying member having a shaft carried by said supporting arm provided with a plurality of pairs of radial tubular projections formed with aligned slots for receiving blades adapted to be secured for limited radial movement relative to said shaft by pins inserted through slots formed in the blades and mounted in said projections, and resilient means being provided in said projections for normally projecting said blades outwardly from the shaft, in order that the blades will engage the inner periphery of the bore formed in the tubular core member carrying the roll of material, for effectively holding said core against rotation.

A further object of the invention resides in providing a roll holder wherein a plate member is provided with a pair of parallel supporting arms arranged in spaced relation and extending from one side of the plate, one of said supporting arms being formed with a socket, while the other supporting arm is formed with a portion of a socket aligned with the socket in the first mentioned supporting arm and cooperating with another socket portion formed in a hinged cooperating member, so that the roll carrying member may be removably carried in the sockets of said supporting arms, the hinge cooperating member serving to lock the carrying member in said socket, and the last mentioned supporting arm being provided with a projection mounting a suitable key operated latch adapted for hooking the cooperating member to said supporting arm to prevent the removal of the roll carrying member by unauthorized persons.

The invention includes other objects and improvements in the details of construction and arrangement and co-relation of the parts, which are more particularly pointed out in the following detailed description and claims, directed to a preferred form of the invention, it being understood, however, that various changes in the minor details may be made, without departing from the spirit and scope of the invention as described and claimed.

In the drawings, forming part of this application:

Figure 1 is an end elevation of the roll holder, showing the roll in position and the supporting arm having the hinged cooperating member thereon, in locked position in full lines, and in dotted lines in open position, for permitting the removal of the roll and the roll carrying member.

Figure 2 is a front elevation of the roll holder with the roll removed and the hinged cooperating member swung to opened position.

Figure 3 is a detail sectional view, through the roll carrying member, taken on the line 3—3 of Figure 2.

Figure 4 is a detail sectional view through the projection on the ends of one of the roll carrying arms, showing the hinged cooperating section in locked position and the manner in which the lock cooperates with an end holding the same.

1 indicates a plate member provided with a plurality of openings 2 adapted to receive screws or other securing means for fastening said plate member to a suitable support, such as a wall, or the like, where it is desired to mount rolls of paper or the like, for use. This plate member is provided with a pair of spaced parallel supporting arms projecting from one side thereof, as

indicated at 3, one of said arms being provided with a substantially square socket, indicated in dotted lines, at 4, for receiving and retaining one end of a roll carrying member, indicated generally at 5.

The other supporting arm is formed with an enlarged head portion 6, of semi-cylindrical form, which is formed with a half socket portion 7, opening through the plane face 8, on the outer end of the supporting arm.

The supporting arm 3 having the semi-cylindrical boss 6 formed on the outer end thereof has a depending extension thereon indicated generally at 9, formed with a cylindrical recess for receiving a suitable form of key operated lock 10, which is provided with a rotatable locking spindle 11, projecting into a recess 12, on the inner side portion of the extension, which carries a locking pawl 13, for operation in said recess. A slot 14 communicates with the recess 12 in said extension, in line with the locking projection 13, for a purpose which will presently appear. A cooperating member 15 is formed with a half socket, as indicated at 16, for cooperation with the half socket 7 in the end of the arm 3, and is provided with a plane face 17, adapted to engage and seat on the plate of the face 8 of the supporting arm, said section being hinged to the upper outer end of the supporting arm 3 at 18, in a suitable manner, in order that it may be swung to open position for permitting the insertion of the squared end of the shaft of the roll carrying member 5, to be locked therein, when said cooperating member is in closed position as shown in full lines in Figure 1. This cooperating hinge member also includes an arcuate projection 19 of semi-cylindrical form, having a lateral and inwardly directed lug 20 formed on the end thereof, so that when the member is swung to closed position with the face 17 engaging the face 8, the arcuate projection 19 will seat in the recess 14, of the extension 9, and the lug 20 will project into the path of the locking pawl 13, so that when the same is moved to locking position as illustrated in Figure 4, the hinged cooperating member will be prevented from being moved on the hinge 18 to its open position indicated in dotted lines. This will prevent unauthorized persons from removing the roll carrying member 5 and thereby the roll carried thereon and a subsequent waste of the material of said roll.

The roll carrying member 5 includes a shaft 21, which is adapted to extend between the arms 3 of the holder and is formed at the end portions with squared heads 22, adapted to seat in the sockets formed in the respective arms, as above described. Intermediate the ends, the shaft 21 is formed with pairs of radially extending tubular projections 23, each pair of projections having aligned slots 24 formed therein for slidably receiving the blades 25, which are adapted to extend throughout substantially the entire length of the shaft 21, between the heads 22 at the ends, and are normally projected outwardly or radially from the shafts by suitable coil springs 25, positioned in the inner ends of the tubular projections and engaging the inner ends of said blades 25. Pins 26, mounted and extending transversely through the tubular projections 23 extend through slots 27 in said blade for limiting their radial sliding movement in the slots 24. These blades are adapted to be projected outwardly for normally engaging the inner tubular core 28, forming the center of a roll of paper towels, toilet paper, or the like, on which the paper is rolled, so that when said blades are in engagement with said core 28, the core will be prevented from rotation, in the removal of paper from the roll.

In using this paper roll holder, the cooperating member 15 is swung to the open position, as shown in dotted lines in Figure 1, and the roll holder 5 is removed from the supporting arm and inserted through one end of the core 28 of a roll of paper or the like, the rounded end 29 of said blades 25 serving to permit the ready insertion thereof into the core, the roll holding member being positioned with the squared end 22 projecting from each end, in any well known manner. The roll holding member and the roll mounted thereon is then inserted into the supporting arms by first applying one of the squared heads 22 into the socket 4 of one of the arms 3, following which the other head 22 is seated in the socket portion 7 of the other arm 3 and the hinged section 15 then being moved from the dotted line position to the full line position shown in Figure 1.

In this closed position of the cooperating member 15, the socket portion 16 thereon receives a portion of the head 22, and in cooperation with the socket 7, retains the roll carrying member between said arms in rigid relation, and against rotation. Following, the movement of the hinged cooperating section to the closed position, a suitable key is inserted in the lock, and the locking pawl 13 moved from the dotted line position of Figure 4 to the full line position therein, for cooperation with the lip 20 on the arcuate extension 19 of said hinged member, which will effectively lock said member in closed position, as indicated in full lines in Figure 1, for effectively locking the roll carrying member 5 with the roll thereon, in the supporting arm against removal by unauthorized persons. In this position, it will be impossible to remove the roll holder 5 from the sup-

porting arm without mutilating the lock or operating the same with the proper key. When it is desired to use a portion of the paper or other sheet material forming the roll, the end thereof is pulled, which will cause a rotation of the material of the roll on the core 28, and due to the tendency of the core to retain the roll against rotation, a substantial friction will be set up and prevent the rotation of said roll, except when a considerable force is applied thereto, so that the user of the material or a portion of the material on the roll will be prevented from spinning the same, and removing more than is actually needed for the desired purposes. This construction, therefore prevents waste of the material of the roll, and also the use of material for purposes for which it is provided, due to the friction set up against the rotation of the roll, which only permits it to be slowly rotated, in the manner above described. After the roll is used, and it is desired to place another roll on the roll carrying member 5, the lock is unlocked by the usual key, and the operation of applying a roll repeated as above described, prior to which the core of the first roll is removed, before inserting the roll carrying member into the core of the next roll to be placed in the holder.

It will thus be seen that novel construction of supporting arms has been provided for locking a roll carrying member therein, which may be constructed at a substantially small cost and which is efficient in operation for locking the roll carrying member against removal by unauthorized persons, and also in providing a roll carrying member of special construction, having a plurality of radially removable blades for normally engaging the core of a roll of paper or the like, to be used in said holder, and for preventing the rotation and collapse thereof on the member, in order to prevent the waste of paper now occasioned by the use of roll carrying members which are readily rotatable and permits the spinning of the roll for the removal of a large portion of the contents thereof which is ordinarily wasted or used for purposes other than those intended.

What is claimed is:

1. A device of the class described comprising a plate member, a pair of supporting arms extending from one side thereof in parallel spaced relation, each of said arms being formed with sockets, and a roll carrying member removably mounted in the sockets of said arm having a shaft formed with a plurality of radially extending tubular projections arranged in spaced pairs, each pair of projections being formed with aligned slots, a plurality of blades mounted in the respective aligned slots of each pair of projections, and adapted for relative radial movement to said shaft, securing pins mounted in said tubular projections and extending through slots formed in the blade for limiting the radial movement of said blades in the projections, and coil springs interposed between the inner edges of the blades in the bottom of the tubular projection, for normally projecting the blades outwardly from the shaft for engagement with the inner periphery of the roll.

2. A device of the class described comprising a plate member, a pair of supporting arms extending from one side of the plate member, one of said arms being formed with a closed socket, the other arm being formed with an open socket, an extension on the end of the last mentioned arm, a lock mounted in said extension, said extension being of substantially cylindrical form and having a slot formed in the outer periphery thereof, said lock including a spindle, a pawl on the spindle projecting into the slot, a roll carrying member having the ends thereof adapted for seating in the socket of said arms, a cooperating member hinged to the last mentioned supporting arm for holding one end of the roll carrying member in the socket thereof and having an arcuate projection thereon formed with an inwardly extending lug, said arcuate projection and lug being adapted to seat in the slot, said lug projecting into the path of movement of said pawl of the lock whereby when the lock is in locking position, said pawl will be positioned in the path of movement of said lug and prevent the movement of the cooperative member for preventing the removal of said roll carrying member.

In testimony whereof I affix my signature.

LOUIS F. BRASCH.