No. 643,089. Patented Feb. 6, 1900.

H. E. GURNEY.

PAPER FIXTURE.

(Application filed Dec. 12, 1898.)

(No Model.)

FIG. 1.

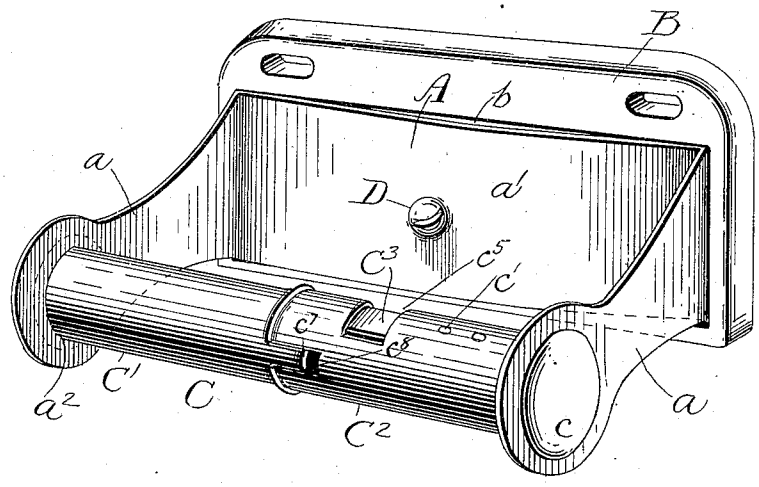


FIG. 2.

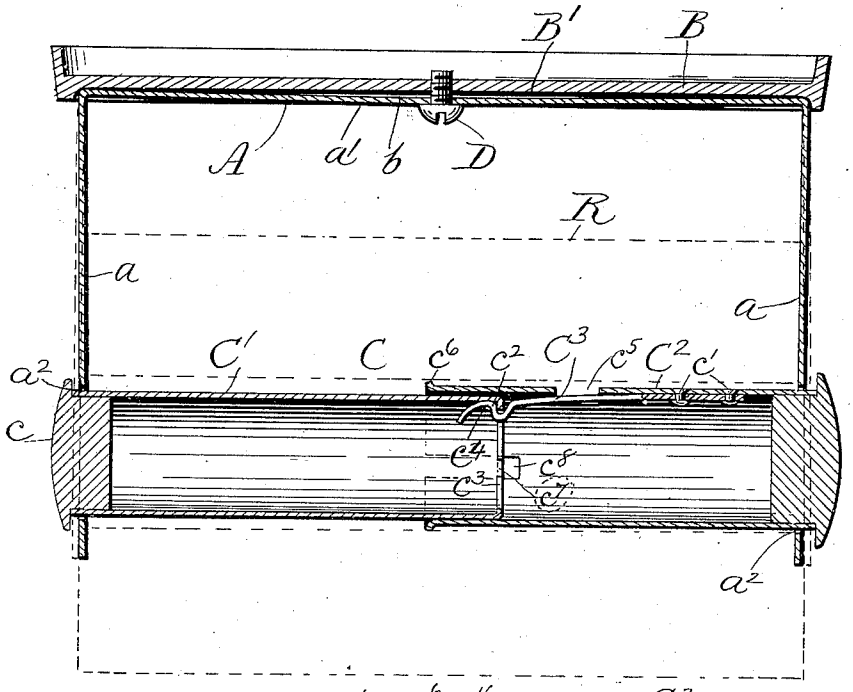
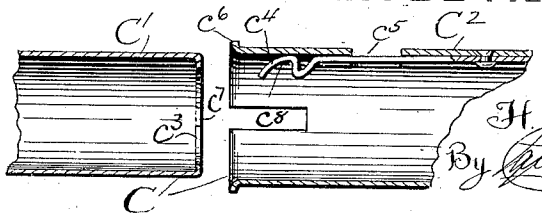


FIG. 3



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UNITED STATES PATENT OFFICE.

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PAPER-FIXTURE.

SPECIFICATION forming part of Letters Patent No. 643,089, dated February 6, 1900.

Application filed December 12, 1898. Serial No. 699,018. (No model.)

To all whom it may concern:

Be it known that I, HINKLEY E. GURNEY, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Toilet-Paper Fixtures, of which the following is a specification.

This invention relates to improvements in fixtures for supporting rolls of toilet or other paper or the like, and more especially to that class of such devices in which a yielding or spring pressure of the side arms of the fixture upon the ends of the roll of paper is relied upon to effect a braking action, by which the paper is prevented from being too readily unwound.

The object of the invention is to provide an improved construction in fixtures of this character; and it consists in the matters herein set forth, and more particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a perspective view of a fixture constructed in accordance with my invention. Fig. 2 is a horizontal section thereof. Fig. 3 is a sectional detail showing the roll-supporting tubes separated.

The fixture thus illustrated comprises a resilient sheet-metal plate A, the end portions *a* of which are bent outwardly, so that they stand at an angle of approximately ninety degrees with the connecting middle portion *a'* of the plate. Said middle portion *a'* is designed to rest against and be fastened to a suitable base B, and the end portions *a* then project outwardly from the base and form the side arms of the fixture, the roll R of toilet-paper or the like being rotatively mounted between these side arms *a* in the usual manner upon a supporting shaft or bar C. The resilience of the plate A is relied upon in this construction to exert the yielding pressure upon the ends of the roll by which the unwinding of the paper is retarded and its waste prevented. To this end the side arms *a* are arranged to normally stand at a distance apart somewhat less than the length of the roll, so that when forced farther apart by the insertion of the roll between them they resiliently grip or pinch the roll, and thus act as a brake to resist its rotation. In the approved construction shown also this pinching or braking action of the spring side arms is made adjustable by suitable means, which in this instance consist in so applying an adjusting-screw D that by turning it the middle portion *a'* of the plate A can be sprung or distorted to a greater or less degree, so as to thereby vary the position of the projecting end portions *a* of the plate, it being obvious that the integral construction of the plate will cause said end portions to change position in response to the changes in shape of said middle portion. As herein shown, the screw D is loosely inserted through an aperture in the middle of the plate A and engages a screw-threaded aperture in the base B behind said plate, the relative shapings of the proximate surfaces of the plate and base being such that the plate bears against the base only at the ends of its middle portion *a'*, leaving a space *b* between it and the base in the region of the adjusting-screw D, so that when said screw is tightened the center of the plate will be drawn in toward the base against its own resilient resistance and the outer ends of the side arms thereby caused to approach each other. As herein shown, also the front side of the base is formed with a shallow recess B', that is made of the same general outline as the middle portion *a'* of the plate A and that serves as a seat, within which the said middle portion has a bearing at its points of angular junction with the side arms *a*. Between these points the middle portion of the plate is bowed forward away from the back of the recess, but can be drawn out down into it to any desired extent by turning up the screw D, the latter, in this construction, obviously serving not only as an adjusting-screw, but also as the means of fastening the plate A to the base B. By turning said screw the fixture may be readily adjusted, as found necessary, to admit rolls which vary considerably in length and to exert just the right amount of pressure upon the ends of the roll. If the roll provided is a short one, or if it is desired to increase their pressure, the ends of the side arms are brought closer together by tightening up the screw D, while if the roll is longer or it is desired to ease off the pressure the screw D is loosened slightly to enable the arms to spread farther apart. Ordinarily, however, a single adjustment of the fixture, when that adjustment is properly de-

termined, will enable the fixture to receive and act properly upon the average run of rolls supplied in the ordinary course of commerce.

Any suitable construction of the cross-bar or shaft C which will enable the roll of paper to be readily inserted and permit the free resilient action of the side arms may be employed in this connection, but as a further improvement that herein shown comprises two telescoping tubular sections C′ and C^2, which are mounted to slide loosely through apertures a^2 in the ends of the side arms a, but have enlarged heads c at their outer ends, by which they are prevented from passing entirely through said apertures. One section C′ is made small enough at its inner end to enter the adjacent end of the other section C^2 and is arranged to be locked therein by a suitable catch C^3. The latter, as herein shown, is a tongue of spring metal secured to the inside of the tube C^2 by rivets c' or otherwise and bent at its inner end to form a hook c^2, which is adapted to interlock with an inwardly-turned flange c^3 on the inner end of the tube C′. An inclined lip c^4 on the end of the latch insures the automatic engagement of the latter with the tube C′ when the latter is thrust into the tube C^2, and the length of the tubular bar between its heads c when its two sections are thus interlocked is made great enough to permit the maximum separation of the side arms a, required for the longest roll for which the fixture is designed. To permit the latch C^3 to be released, a slot c^5 is cut in the wall of the tube C^2 above the latch, so as to expose the latter and permit it to be depressed by the application of the finger through said slot. This can, obviously, only be done when the roll of paper is exhausted, since at all other times the latch will be entirely inclosed and inaccessible. The stealing of paper by removing the rolls bodily from the fixtures is thus rendered impossible. An outwardly-turned flange c^6 is shown on the inner margin of the tube C^2 to prevent the latter from being entirely withdrawn from the fixture, and one or more outwardly-bent lips c^7 accomplish the same purpose for the tube C′, slots c^8 being provided in the end of the tube C^2 to permit the passage of said lips.

The construction thus described furnishes a strong and durable fixture, which serves its purpose effectively and is easy to manipulate and adjust and at the same time capable of being produced at a relatively low cost of manufacture. The details of the construction may be considerably varied without changing its substantial operation or departing from the spirit of the invention claimed.

I claim as my invention—

1. A fixture of the class described, comprising a sheet-metal plate having its end portions bent forward from its middle portion to form the side arms of the fixture, a roll-support carried by said side arms adapted to permit the approach of the latter toward each other to engage rolls of varying length, whereby said arms act as brakes upon the end surface of the roll, and means for adjustably varying the tension of the side arms on the ends of the inserted roll.

2. The combination with a base, of a sheet-metal plate secured to the base with its ends bent forwardly therefrom to form side arms projecting rigidly from the base, a roll-support carried by said side arms, and means mounted upon the base for adjustably distorting said plate to vary the normal distance between said side arms to vary their tension on the ends of the inserted roll.

3. The combination with a base, of a sheet-metal plate having its ends bent forward away from the base to form the side arms of the fixture, said plate engaging the base at two points and being separated therefrom between said points, an adjusting-screw applied between the plate and base between said points of contact, and a roll-support carried by said side arms.

4. The combination with a base, of a sheet-metal plate having its end portions bent forward from said base, the plate bearing against the base at points adjacent to its angles, an adjustable clamping-screw applied between the plate and base between said bearing-points, and roll-supports carried by said side arms.

5. In a fixture of the class described, the combination with a base having side arms projecting therefrom, apertures in the ends of said side arms, a roll-support made in two sections separable at a point between the arms each mounted to slide endwise through the aperture of one of said side arms, and each provided at its outer end with a stop positively limiting its movement through the arm, and means for detachably interlocking said sections, said interlocking mechanism being constructed to positively limit the extension of the roll-support, substantially as described.

6. The combination with a base provided with forwardly-projecting side arms, and a roll-supporting shaft comprising telescoping tubular parts loosely mounted in said side arms to slide endwise therein, a catch inside of one of said parts adapted to detachably engage the other part, and an aperture in the wall of the part containing said catch through which the latter may be pressed to release the other part.

In testimony that I claim the foregoing as my invention I affix my signature hereto, in the presence of two subscribing witnesses, this 5th day of December, 1898.

HINKLEY E. GURNEY.

Witnesses:
H. W. CARTER,
M. E. MARSH.