No. 813,128. PATENTED FEB. 20, 1906.

H. J. WILLIAMS.

PAPER FIXTURE.

APPLICATION FILED JUNE 19, 1905.

Fig. 1.

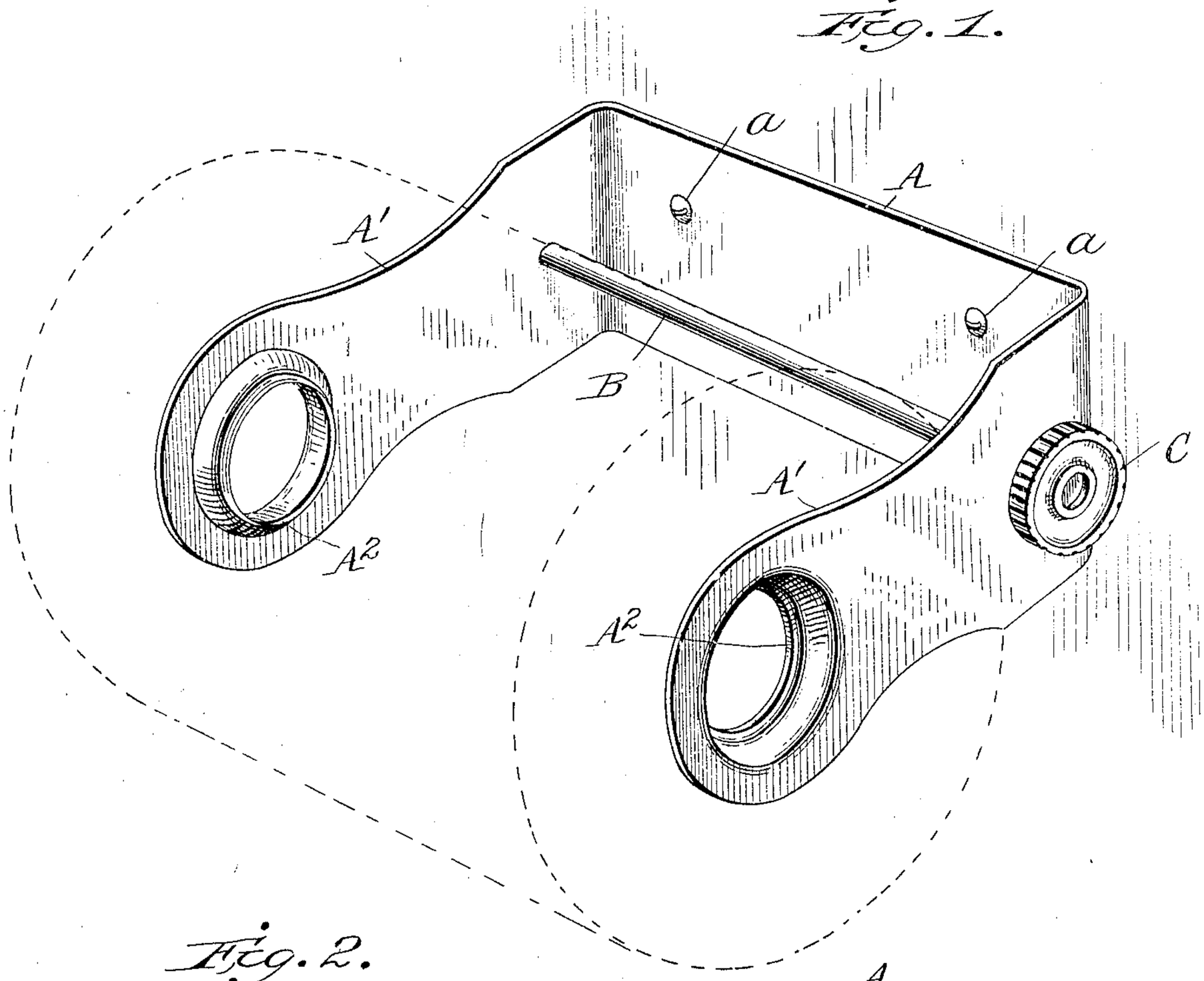
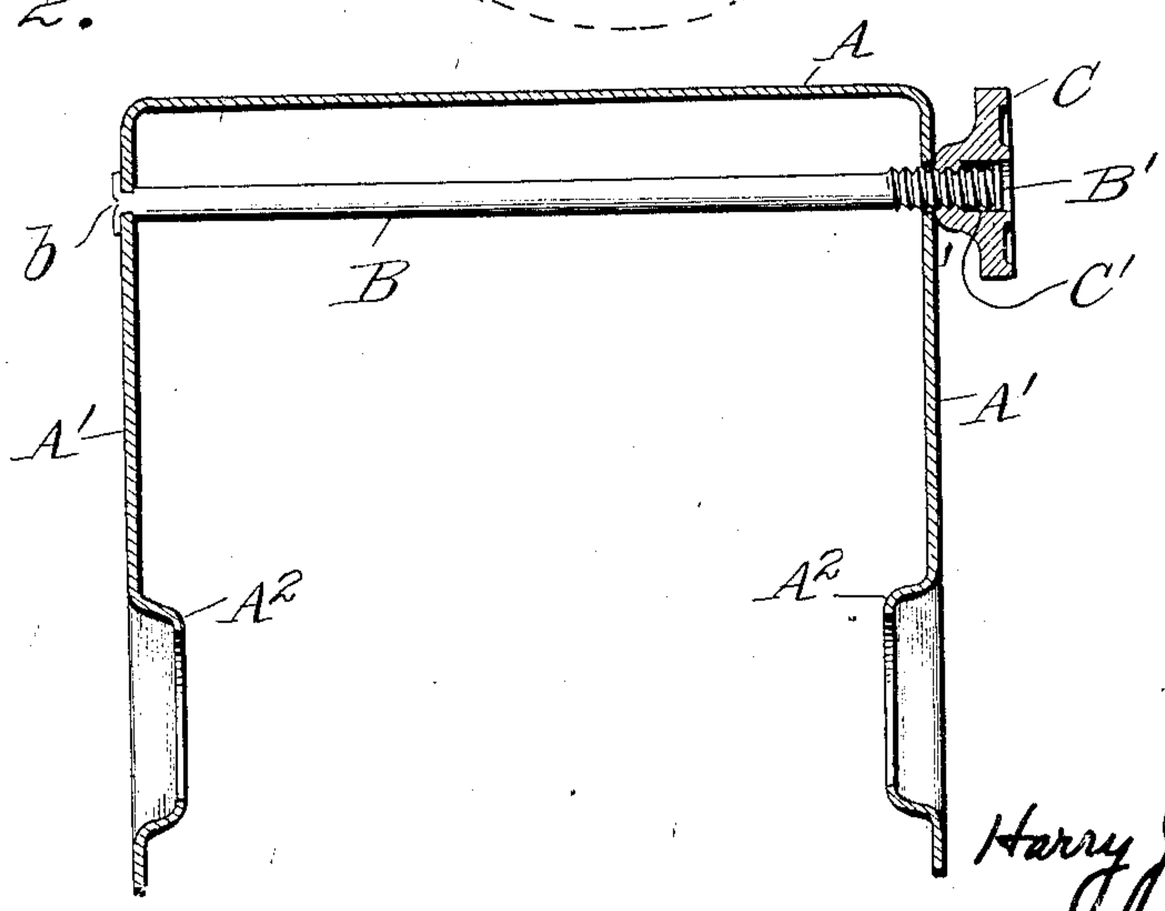


Fig. 2.



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UNITED STATES PATENT OFFICE.

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PAPER-FIXTURE.

No. 813,128. Specification of Letters Patent. Patented Feb. 20, 1906.

Application filed June 19, 1905. Serial No. 265,964.

To all whom it may concern:

Be it known that I, HARRY J. WILLIAMS, a citizen of the United States, residing in Meriden, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Paper-Fixtures; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon.

This invention relates to improvements in fixtures for supporting rolls of paper, the invention being more especially applicable to toilet-paper fixtures, wherein cheapness and simplicity in design and operation are important factors.

The objects of the invention are to provide a simple cheap fixture without removable parts which will revolubly support the roll and at the same time restrain its rotation by friction applied through the holding and supporting parts, so as to facilitate the separation of the sheets and prevent overrunning by momentum.

The invention consists in certain novel details of construction and combinations and arrangements of parts, all as will be now described, and pointed out particularly in the appended claims.

Referring to the accompanying drawings, Figure 1 is a perspective view of a fixture embodying the present improvements, a roll of paper being shown in dotted lines. Fig. 2 is a horizontal section through the fixture, showing the preferred contour of the roll-centering projections and detail construction of the adjusting mechanism.

Like letters of reference in both figures indicate the same parts.

The body of the fixture is struck up from sheet metal, preferably a continuous integral length embodying a base portion A, adapted to be secured to the wall or other support by screws *a*, and two arms or brackets A′, between the outer ends of which the roll of paper is clamped and held. Instead of providing a core piece or support extending between the arms and constituting a part of the fixture, as is usual in this type of fixture, the arms A′ are provided near their ends with annular projections A^2, adapted to enter the central openings in the ends of the roll to form the journals, on which it rotates as the paper is drawn off.

In forming up the body of the fixture the arms are preferably given a set to stand open sufficiently to receive the roll between them, and in order to draw the arms together to enter the projections and press the inner faces of the arms against the ends of the roll with sufficient pressure to create the desired friction an adjustable tie is provided in rear of the roll, preferably near the base of the arms. This tie may for the sake of simplicity take the form of a cross-bolt B, having one end secured permanently in one of the arms, as at *b*, and the other end passed through the opposite arm and threaded for the reception of a thumb-nut C. The latter is adapted to be rotated in one direction or the other to close or allow the arms to spring open, as the case may be.

To prevent the entire removal of the thumb-nut, as well as to limit the opening of the arms, the end of the tie B is headed at B′ on the outer side of the thumb-nut, and the nut itself may be recessed for the reception of the head, as at C′, whereby the projection of the end of the tie is avoided, inasmuch as the necessary range of movement of the nut on the tie is small, and at the inner extreme of adjustment the end of the tie will project but little if any beyond the nut.

Obviously the frictional pressure on the ends of the roll may be accurately adjusted to effect the proper separation of sheets from rolls even though the lines of weakness vary in strength within a wide range, thus adapting the fixture for effective operation with practically all grades and makes of paper.

The arms themselves, while preferably slightly elastic or resilient, so as to exert a yielding pressure on the roll, are nevertheless relatively wide and strong enough to resist any strains such as might be caused by attempting to remove or insert a roll without releasing the tie connection at the base of the arms.

The fixture is simple yet effective, it is adapted to hold paper of widely-different sizes with equal facility, there is little or no danger of its being broken by rough usage, and no opportunity for the loss or removal of parts by careless or viciously-inclined persons.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A fixture of the class described comprising a metal plate having its end portions bent forward to form the side arms of the fixture, said arms having inwardly-extending projections opposite each other to form the journals for a roll of paper and an adjustable tie-bolt connecting said arms in rear of the projections, whereby the arms may be moved toward each other to press the inner faces of the arms against the sides of the roll to create friction; substantially as described.

2. A fixture of the class described comprising an integral resilient sheet-metal plate having its end portions bent forward to form side arms or brackets, said arms having integral inwardly-extended, annular, tapered projections forming journals for the roll held between the arms, and an adjustable tie-bolt connecting the arms whereby said arms may be pressed against the sides of the roll to create friction, said tie-bolt being in rear of the roll, whereby a roll may be inserted or removed without the removal of the tie; substantially as described.

3. A fixture of the class described comprising a sheet-metal plate having its end portions bent forward to form side arms between which the roll is clamped and supported, a tie having one end affixed to one of said arms near its base and passing through the opposite arm and a thumb-nut threaded on the free end of the tie outside of the arms, said tie being located in rear of the position occupied by the roll and being adapted to draw the arms together against the resiliency of the metal to clamp the roll and form a friction-brake.

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