

A. C. KUNDTSON.
 PAPER TEARING DEVICE.
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1,325,300.

Patented Dec. 16, 1919.

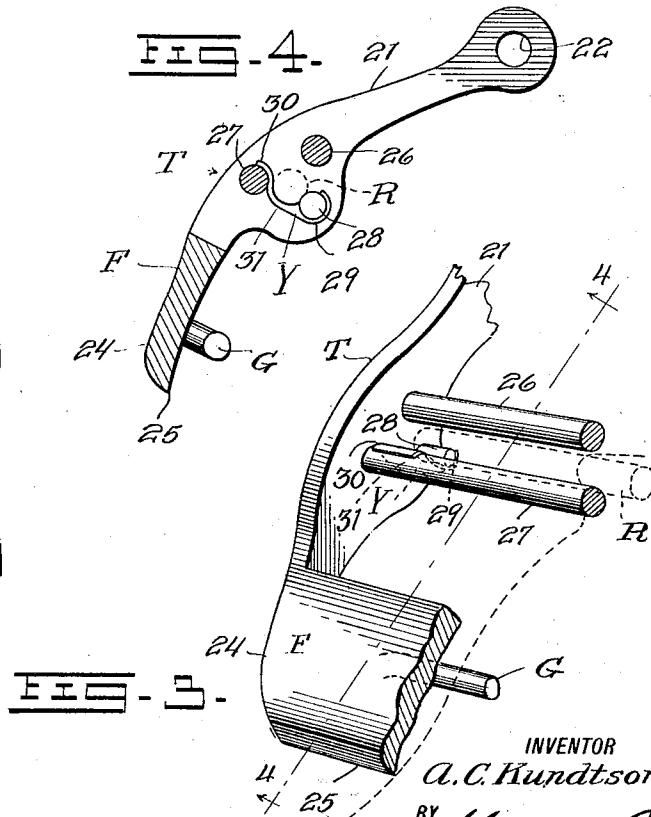
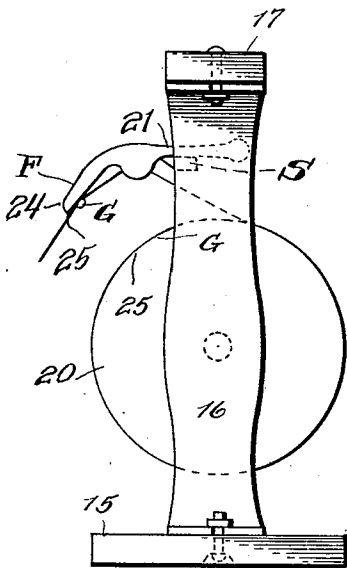
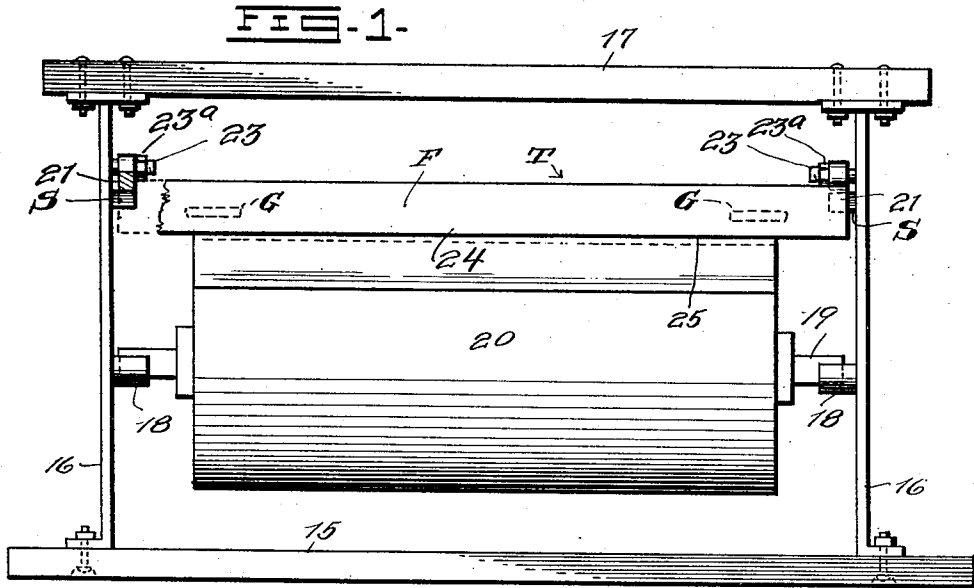


FIG. 2.

FIG. 3.

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PAPER-TEARING DEVICE.

1,325,300.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ARTHUR C. KUNDTSON, a citizen of the United States, and a resident of Ettrick, in the county of Trempealeau and State of Wisconsin, have invented certain new and useful Improvements in Paper-Tearing Devices, of which the following is a specification.

My invention relates to paper dispensing devices and particularly to a paper tearing device therefor.

It is a purpose of my invention to provide a device of this character having means for permitting the unrestricted dispensing of paper from a roll and for locking the paper against further feeding when tearing the same so that the paper is always cut with a straight edge.

I will describe one form of paper dispenser and one form of tearing device embodying my invention, and will then point out the novel features thereof in claims.

In the accompanying drawings:

Figure 1 is a view showing in front elevation one form of paper dispenser and one form of tearing device embodying my invention.

Fig. 2 is a view showing in end elevation the apparatus shown in Fig. 1.

Fig. 3 is a fragmentary perspective view of a portion of the tearing device shown in the preceding views.

Fig. 4 is a sectional view taken on the line 4-4 of Fig. 3.

Similar reference characters refer to similar parts in each of the several views.

Referring specifically to the drawings, and particularly to Figs. 1 and 2, I have here shown a conventional form of paper dispensing device for dispensing paper from a roll. This device comprises a base 15 in which is secured uprights 16 connected at their upper ends by a cross bar 17. The uprights 16 are provided on their confronting faces with bearings 18 for receiving and rotatably supporting the opposite ends of a spindle 19. The spindle 19 in turn supports a roll of paper 20.

The tearing device which forms the subject-matter of my invention is generally indicated at T and comprises a substantially U-shaped frame F, the parallel portions 21 of which are provided with openings 22 to loosely receive pins 23 formed on the confronting faces of the uprights 16. The free ends of the pins 23 are threaded to receive

nuts 23^a for confining the portions 21 on the pins. Below and in advance of the pins 23 are studs S which engage the underside of the portions 21 and thus support the frame F in elevated position above the roll 20, as illustrated to advantage in Fig. 2. The horizontal portion 24 of the frame F has its lower longitudinal edge sharpened to provide a cutting edge 25. By this arrangement it will be seen that the frame F is rigidly supported upon the uprights and at no time does it engage the periphery of the roll of paper 20. As shown in Figs. 3 and 4, the parallel portions 21 are connected intermediate their ends by rods 26 and 27, such rods being fixed to the parallel portions and spaced apart in parallelism. Between and below the rods 26 and 27 is located a pair of lugs 28 to each of which is secured a yoke Y. Each yoke Y comprises an end portion 29 which embraces the lug 28, another end portion which is bent in the opposite direction as at 30 and engages the rod 27, and an intermediate portion 31 which is curved in the form of an arc to receive a roller R. As shown in dash lines in Figs. 3 and 4, the roller R is of a diameter which exceeds that of the rods 26 and 27, and because of the curvature of the yokes Y the roller when in its normal position rests upon the lugs 28.

To properly guide the paper during the dispensing operation, I employ a pair of guide arms G which are secured to the rear side of the horizontal portion 24 of the frame F. As shown in Figs. 1 and 4, the guide arms G are of L-shaped formation and are spaced from the rear side of the frame so as to accommodate the end of the roll 20 as illustrated to advantage in Fig. 3.

The operation of the tearing device is as follows:

The end of the roll of paper 20 is trained below the rods 26 and 27 and above the roller R as clearly shown in dash lines in Fig. 3. The paper is then passed through the guide arms G so that it normally depends in a convenient position for dispensing and tearing. When dispensing paper from the roll, the roller R is caused to move out of the curved portions 31 of the yokes Y and upwardly against the curved end 30. This movement of the roller R is secured by virtue of the friction between the surface of the roller and the paper. Because of the diameter of the roller R, it can not pass be-

tween the rods 26 and 27 when in contact with the curved end 30 of the yokes Y, thus at all times maintaining the roller in operative position. After the required amount of paper has been dispensed from the roll, the tension to which the paper is subjected during the dispensing operation, is discontinued so that the roller R is allowed to fall back into the intermediate curved portions 31. With the roller R in this position, it is held against rotation by virtue of its frictional contact with the yokes Y and the lugs 28. It is to be seen therefore that when the paper is lifted to engage the cutting edge 25 and then pulled, the roller R will hold the paper against further feeding so that the paper may be readily torn in the usual manner.

Although I have herein shown and described only one form of paper dispenser and tearing device therefor, it is to be understood that various changes and modifications may be made herein without departing from the spirit of the invention and the spirit and scope of the appended claims.

I claim:

1. In combination, a support, a roll of paper rotatably mounted on the support, a cutting member fixed to the support above said roll, a pair of rods fixed to and extending longitudinally of the member, said rods being spaced apart in parallelism and disposed above the cutting edge of said member, lugs fixed to the member and disposed

between said rods, yokes fixed to the lugs and connected to one of the rods and having intermediate portions curved to form bearings, and a roller mounted in the bearings and of a diameter exceeding said rods.

2. A tearing device for rolls of paper, comprising a support, a frame fixed to the support, a cutting edge formed on the frame, a pair of spaced rods fixed to the frame and disposed above said cutting edge, and a roller loosely mounted for movement between and below said rods.

3. A tearing device for rolls of paper comprising a stationary frame having a cutting edge, a pair of spaced rods fixed to the frame above said cutting edge, and rotatable means working between and below said rods for locking the sheet of paper which is trained over said means and below said rods and cutting edge when the paper is moved upwardly into engagement with the cutting edge to effect a tearing of the paper.

4. A tearing device for rolls of paper comprising a stationary frame having a cutting edge, a pair of spaced rods extending longitudinally of the frame and above said cutting edge, a pair of lugs fixed to the frame between and below said rods, yokes carried by the lugs and connected to one of said rods, and a roller having a diameter exceeding that of said rods and loosely mounted on said yokes and lugs.

ARTHUR CEDOLPH KUNDTSON.