March 20, 1934. W. H. POSSNETT 1,951,529

CUTTING ROLLER FOR PAPER AND THE LIKE

Filed Aug. 17, 1932

Fig.1.

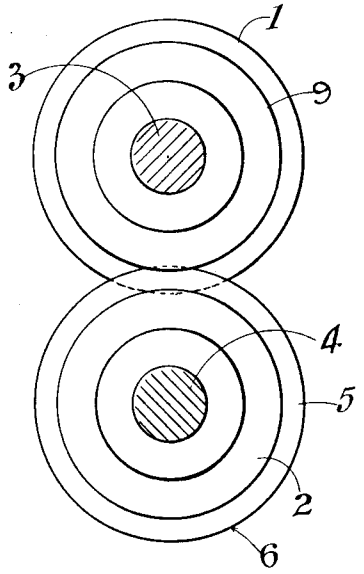


Fig.2.

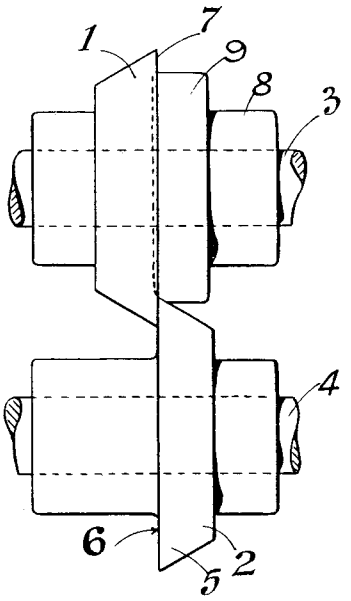


Fig.3.

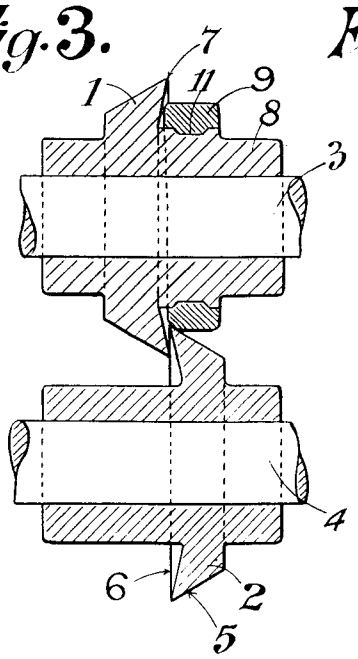
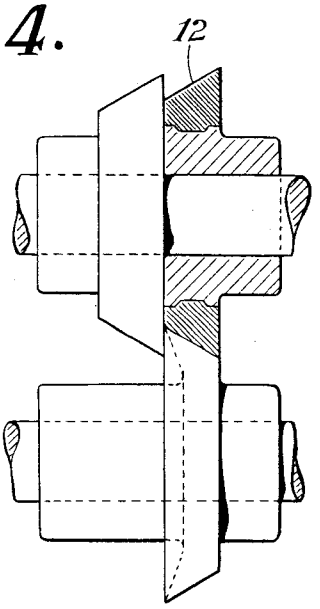


Fig.4.



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UNITED STATES PATENT OFFICE

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CUTTING ROLLER FOR PAPER AND THE LIKE

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Application August 17, 1932, Serial No. 629,183
In Great Britain September 23, 1931

1 Claim. (Cl. 164—70)

This invention relates to cutting rollers for paper and the like, and more particularly to the cutting rollers provided in devices for cutting or trimming wallpaper and so forth by hand.

The object of my invention is to provide means whereby the production of rough or feather edges is avoided when cutting or trimming paper and the like by means of the said rollers.

Cutting rollers for paper and the like in accordance with my invention comprise a resilient member adapted to rotate with one of the cutting rollers and to act on the flank of a second cutting roller cooperating with the first named cutting roller, and maintain the cutting edges of the two rollers in contact and cause the one roller to rotate the other.

The said member may be in the form of an externally circular ring or collar of resilient material mounted on the roller boss or on the roller shaft.

The periphery of the said ring or collar may be cylindrical, convex or conical.

I attain this object by the means illustrated in the accompanying drawing, wherein—

Figure 1 is a side elevation of a pair of cutting rollers for paper and the like.

Figure 2 is a front elevation and

Figure 3 is a front view in vertical section, thereof.

Figure 4 is a front view, partly in vertical section and illustrates a modification.

Referring to the drawing, in the construction shown in Figures 1 to 3, a pair of cutting rollers 1 and 2 are mounted on spindles or studs 3 and 4 respectively. The roller 2 has a bevelled flank 5 terminating in the cutting edge 6 which cooperates with the cutting edge 7 of the roller 1 in order to sever paper or the like by means of a scissors-like action when the paper or the like passes between the rollers.

On the boss 8 of the roller 1 there is provided a ring 9 of rubber or other suitably resilient material. On the line which contains the centres of the spindles or studs 3 and 4, the rubber ring acts resiliently on the flank 5 of the cutting wheel 2 to cause the cutting edges of the wheels 1 and 2 to be maintained in light contact and also to cause the roller 1 to frictionally rotate the roller 2.

The effect obtained by the ring maintaining the cutting edges in light contact and causing the one roller to be rotated by the other roller, is that a clean cut, without roughness or the production of a feather edge is obtained as the paper or the like is subjected to the cutting action of the rollers.

To assist in maintaining the ring 9 axially in position, it may be adapted to engage an annular groove or slot 11 in the boss 8.

In Figures 1 to 3, the ring 9 is shown as having a cylindrical peripheral surface, but as shown in Figure 4, it may have a conical peripheral surface 12 to correspond with the flank of the cutting roller intended to be rotated by the ring.

I claim—

Cutting rollers for paper and the like comprising a turnable cutting roller: a circular knife edge on the said roller; a conical surface provided on the roller at one side of the said knife edge; a second turnable roller; a circular knife edge on the second turnable roller; a boss provided on the second turnable roller; and a rubber ring provided on the said boss and pressing on the said conical surface by initial compression of the rubber for maintaining the circular knife edges of the two turnable rollers in light contact and driving the first named roller frictionally in a direct manner.

WILLIAM HAROLD POSSNETT.