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POWDER DISPENSER FOR PRINTING WEBS

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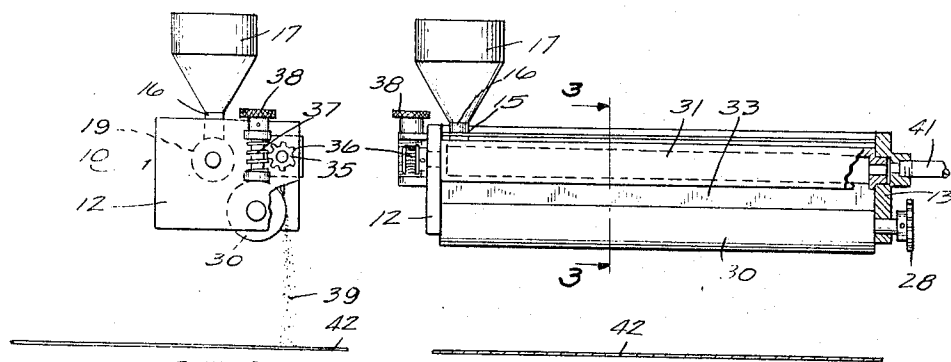


Fig. 1

Fig. 2

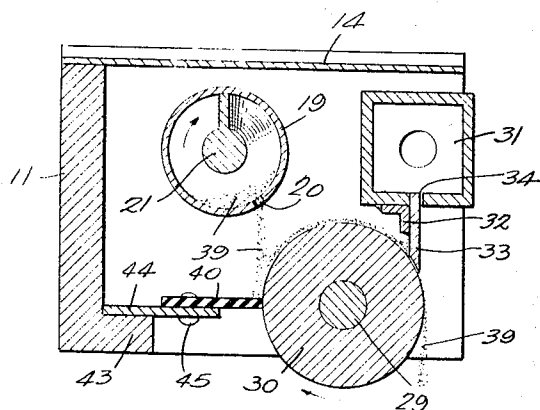


Fig. 3

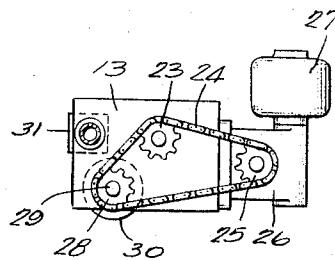


Fig. 4

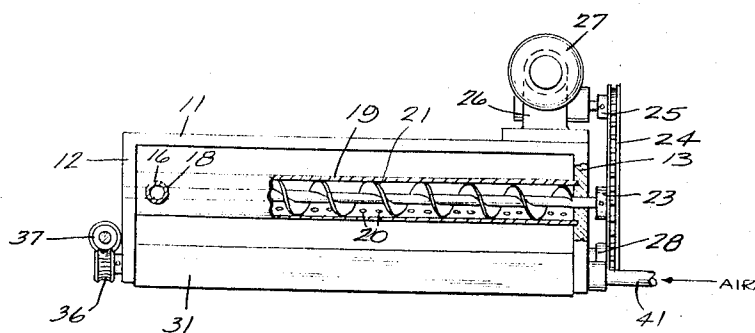


Fig. 5

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POWDER DISPENSER FOR PRINTED WEBS

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1 Claim. (Cl. 222—193)

This invention relates to improvements in powder dispensers for printed webs, and more particularly to a novel powder dispenser for printed webs having adjustable features.

An object of the invention is to provide a device of the type which may be adjusted to dispense just the amount of powder necessary for any given freshly printed web.

Another object of the invention is to provide means for regulating the amount of powder to be used.

Other and further objects of the invention will appear as the description proceeds, reference being had to the accompanying drawing, in which:

FIG. 1 is an end view in elevation of a powder dispenser embodying the invention.

FIG. 2 is a front view of the device partly in elevation and partly in section.

FIG. 3 is a vertical cross-sectional view on line 3—3 of FIG. 2.

FIG. 4 is an opposite end view in elevation.

FIG. 5 is a plan view partially cut away.

Referring more particularly to the drawing, the numeral 10 refers to the device generally, having a rear wall 11, the end walls 12 and 13, and the top plate 14. The top plate 14 is apertured at 15 to receive the reduced portion 16 of a hopper 17 communicating at 18 with the horizontal tube 19 which latter has a plurality of powder dispensing apertures disposed in alignment as at 20. A screw shaft 21 is journaled in the end walls 12 and 13 and has at one end 22 thereof the sprocket gear 23 meshed with the sprocket chain 24 which is also engaged with the sprocket gear 25 on the speed reduction gear 26 driven by the motor 27. A sprocket gear 28 is affixed to axle 29 carrying the cylinder 30. An air chamber 31 is mounted in end walls 12 and 13 for limited rotative movement, and has longitudinally subjoined thereto the angle member 32 and a doctor blade 33 adjoining the air passage at 34. The air chamber 31 is fitted at one end 35 with the worm gear 36 which is meshed with the

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worm 37 operable by knurled member 38 to set the blade 33 relatively to the cylinder 30.

In use, the powder 39 is introduced into the hopper 17 and it gravitates into the tube 19 and is distributed by the screw 21 to drop the powder 39 through the series of apertures at 20 onto the plate element 40 and the adjacent surface of the cylinder 30 which rotates to carry said powder to the doctor blade 33 which has been adjusted by the knurled member 38, the worm 37 and the worm gear 36 to regulate the amount or thickness of the powder 39 on the cylinder 30. Compressed air is admitted by means 41 into the chamber 31 and is blown through the passage at 34 to carry the powder in the proper amount to the web 42 beneath.

Rear wall 11 has a forwardly projecting base shoulder at 43 which supports a plate 44 underlying the plate 40 secured thereto by the means 45.

It will be understood that the device is capable of many modifications in structure and design, without departing from the spirit of the invention, within the scope of the appended claim.

Having thus described the invention, what is claimed and desired to be secured by Letters Patent of the United States, is:

A device for depositing comminuted matter on a printed web including a hopper, a horizontal tube communicating therewith having a plurality of spaced aligned apertures adjacent the lowermost portion of said tube for egress of said matter, a screw coextensive with said tube disposed therein for distribution of said matter to said apertures, a cylinder lower than said apertures and rotatable thereunder, an air chamber mounted for limited rotative adjustment and having a longitudinal slot for egress of compressed air therefrom, and a doctor blade fixed to said air chamber adjacent to and parallel to said slot associated with said cylinder.

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