Jan. 1, 1935. J. R. DAWLEY ET AL 1,986,047

DUSTING ATTACHMENT FOR PRINTING PRESSES KNOWN AS AN OFFSET MACHINE

Filed Sept. 10, 1930 3 Sheets-Sheet 1

Fig. 1.

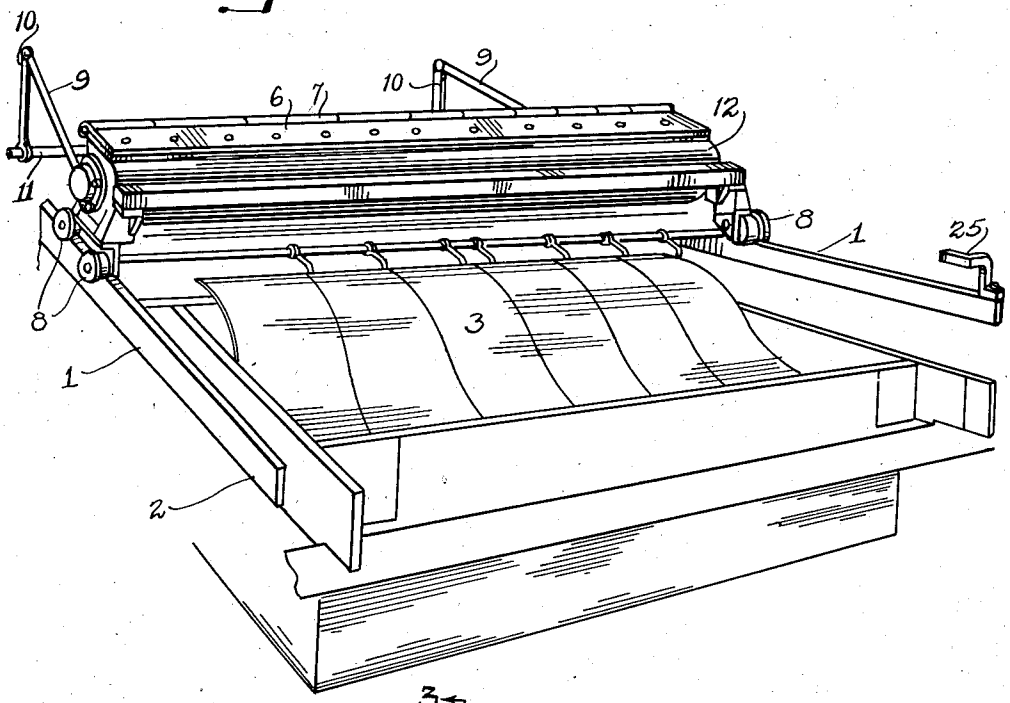
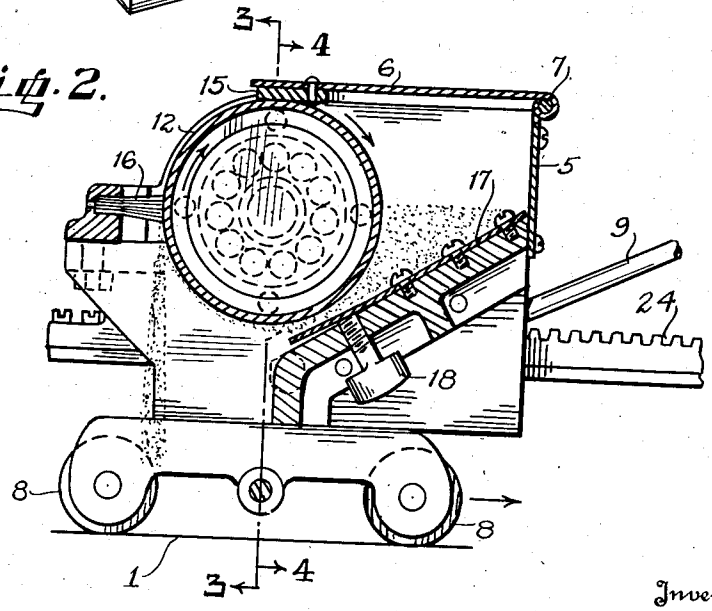


Fig. 2.



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Fig. 3

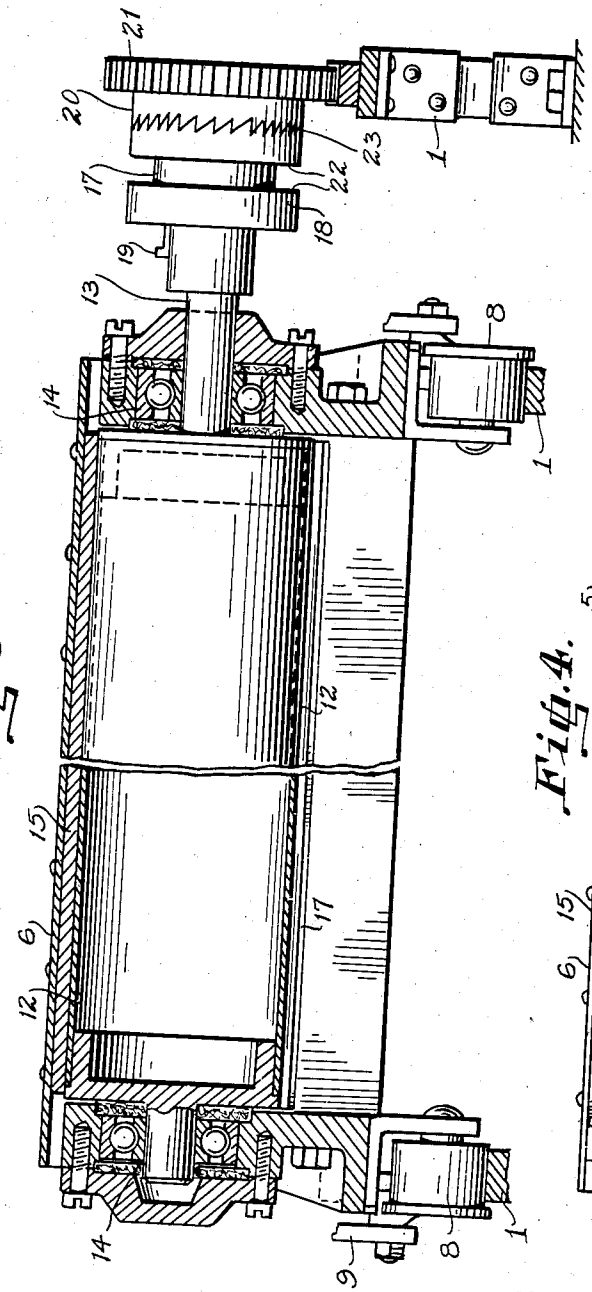
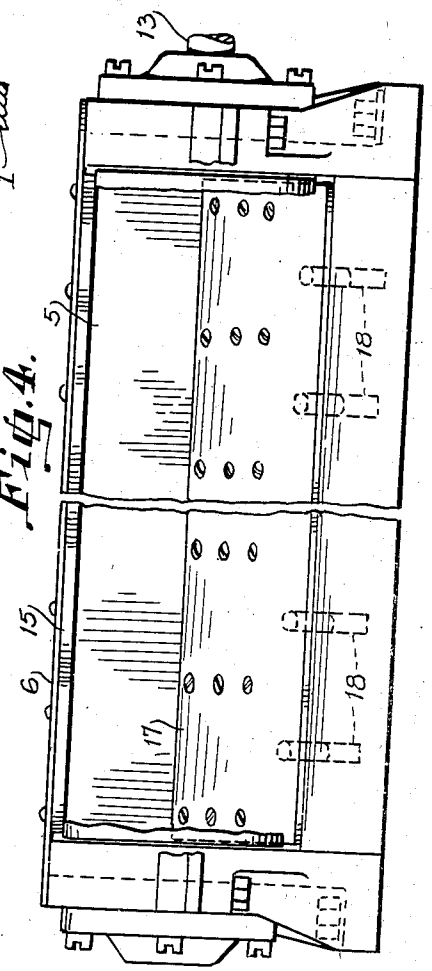


Fig. 4.



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Filed Sept. 10, 1930 3 Sheets-Sheet 3

Fig. 5.

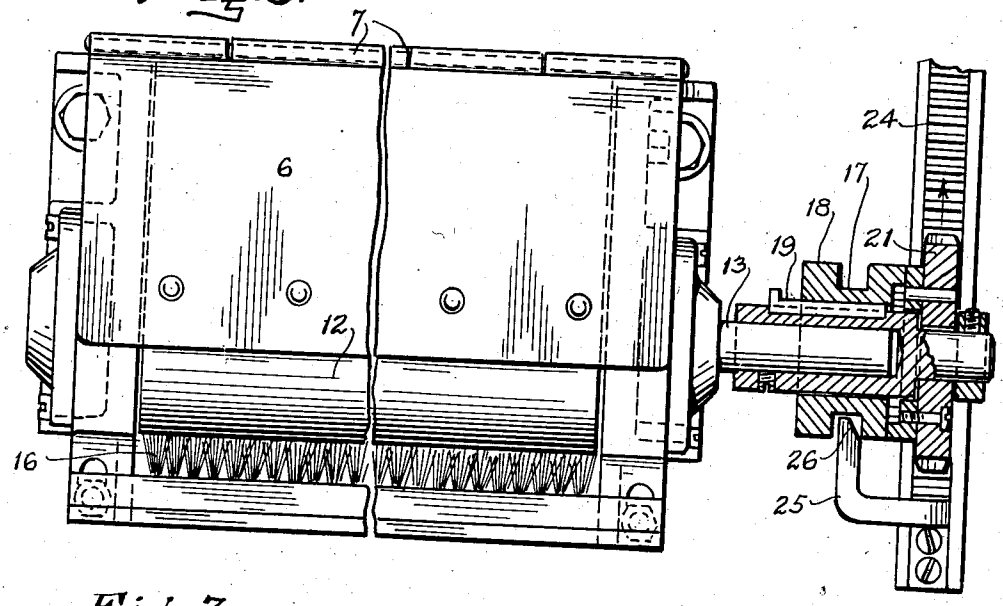
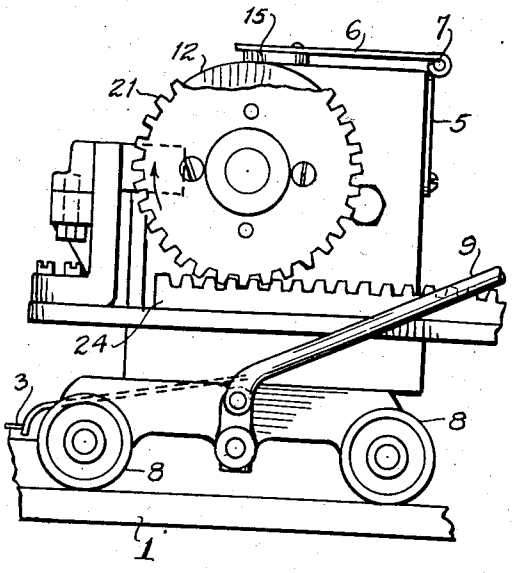


Fig. 7.



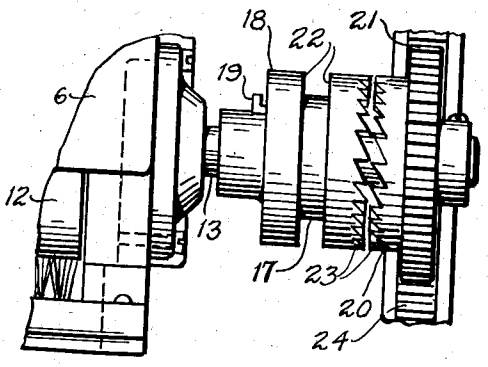


Fig. 6.

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UNITED STATES PATENT OFFICE

1,986,047

DUSTING ATTACHMENT FOR PRINTING PRESSES KNOWN AS AN OFFSET MACHINE

James Raymond Dawley, Cleveland, and Daniel Lamar Cregar, Avon Village, Ohio

Application September 10, 1930, Serial No. 480,994

5 Claims. (Cl. 91—59)

This invention relates to an attachment for printing presses, and more particularly to a dusting device intended to be applied to the delivery to dust a suitable powder over printed sheets to prevent said sheets adhering to each other when stacked in a pile as is the customary practice.

The objects of the present invention are to provide a dusting device for printing presses including certain novel constructions and arrangements, by means of which the device is operated by the press delivery mechanism in conjunction therewith, delivers a proper amount of dust to the printed sheet after delivery, and does not overdust the sheets.

The invention consists in the novel constructions, arrangements and combinations of parts hereinafter more particularly described and claimed.

Three sheets of drawings accompany this specification as part thereof, in which like reference characters indicate like parts throughout.

Fig. 1 is a perspective showing the improved device attached to the delivery end of a press.

Fig. 2 is a vertical, transverse cross section through the dusting device.

Fig. 3 is a longitudinal vertical cross section taken on line 3—3 of Fig. 2.

Fig. 4 is a longitudinal vertical cross section taken on line 4—4 of Fig. 2.

Fig. 5 is a plan view partly broken away with parts in cross section illustrating the clutch control.

Fig. 6 is a detail plan of the clutch connection.

Fig. 7 is an end elevation of the device.

In the drawings, 1 represents side frame members of the press delivery upon which the dusting device is slidably mounted, 2 indicates frame member of the press delivery, and 3 indicates printed sheets delivered from the press.

The improved sifting or dusting device comprises a container 5 of a length adapted to extend substantially the width of the press delivery and having a hinged top 6 pivoted as at 7, through which the powder to be dusted onto the printed sheets is deposited into the container. On the under-face of the lid 6 and adjacent its free edge is positioned a wiper 15, adapted to contact a cylinder 12 mounted longitudinally of the container and forming one wall thereof. The bottom 17 of the container is adjustable by means of set screws 18, so as to adjust the clearance between the bottom 17 and cylinder 12. A brush 16 is mounted on the container exterior of cylinder 12, and this brush extends entirely across the container and is adapted to wipe the powder which adheres to the roller or cylinder 12, causing same to drop onto the printed sheet.

The container 5 is mounted at each end on rollers 8 adapted to ride upon frame members 1, and is connected by rods 9 and levers 10 to a shaft 11, which is part of the ordinary delivery mechanism of the printing press, whereby the rocking of shaft 11 in connection with the press delivery mechanism operates to advance and retract container 5 over the pile of printed sheets 3 in the press delivery.

For the purpose of rotating cylinder 12, the same is mounted on a shaft 13 suitably journaled in the ends of container 5 as by means of bearings 14, and on shaft 13 are mounted clutch elements 18 and 20. Clutch element 18 is caused to rotate with shaft 13 by means of key 19 but is slidable on the shaft. Clutch element 20 is fixedly secured to a gear 21 freely rotatable on the shaft 13. The adjacent faces of the clutch elements 18 and 20 are provided with bevelled teeth 23, so that rotation of the gear 20 in a counter-clockwise direction will automatically disengage the clutch elements. To positively engage the clutch elements, a groove 22 is formed in clutch member 18 and at one end of the press delivery is mounted a cam member 25 having a bevelled face 26 adapted to enter groove 22 and slide clutch member 18 on shaft 13 into engagement with clutch member 20. The gear 21 is in constant engagement with a rack 24 mounted on a suitable frame member of the press parallel with frame member 1.

In operation, as the press delivery delivers a printed sheet towards pile 3, container 5 is advanced with the sheet to the front end of the delivery. The clutch members during this motion being disengaged by reason of the bevelled teeth over-riding each other. At the forward end of the press cam member 25 enters slot 22, thus engaging the clutch members, and as the press delivery returns to the press cylinder for the next sheet, container 6 is retracted therewith, cylinder 12 being rotated in the direction indicated by the arrows by means of gear 21 and the clutch mechanism described, the surface of the cylinder 12 carrying powder from within the container, which powder is swept from the surface of the cylinder by brush 16 and distributed evenly over the printed sheet just deposited upon pile 3.

Obviously the operation will be repeated automatically with the deposit of each newly printed sheet.

Various modifications in the precise structure will readily suggest themselves to those skilled in the art but within the scope of the present invention as claimed.

Having thus fully described our invention, we claim:

1. In a press having means for delivering printed sheets and a frame, means associated with the sheet delivering means and reciprocable of the frame over the delivered sheets, including a hopper, a sifting device associated with the hopper for sifting powder therefrom onto the sheets, and means operable by the reciprocation of the device to operate the sifting device during movement of the device in one direction only.

2. The structure of claim 1 in which the sifting device includes a cylinder associated with the hopper to constitute a side wall thereof, and means without the hopper for brushing dust from the cylinder.

3. The structure of claim 1 in which the hopper has an adjustable bottom wall and the sifting device includes a cylinder associated with the hopper to constitute a side wall thereof adjacent the said adjustable wall whereby an adjustable outlet is provided between the cylinder and said wall.

4. The structure of claim 1 in which the sifting device includes a shaft and a cylinder mounted thereon, a gear on the shaft, a rack carried by the frame with which the gear engages, clutch means on the shaft and gear, and means on the frame for operating the clutch means.

5. The structure of claim 1 in which the sifting device includes a shaft and a cylinder mounted thereon, a gear rotatably mounted on the shaft, a rack carried by the frame with which the gear engages, an over-riding clutch on the shaft and gear, and means on the frame for operating the clutch to secure the gear to the shaft.

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