No. 856,224. PATENTED JUNE 11, 1907.

A. D. CLINGMAN.

PASTE APPLYING MACHINE.

APPLICATION FILED DEC. 31, 1906.

2 SHEETS—SHEET 1.

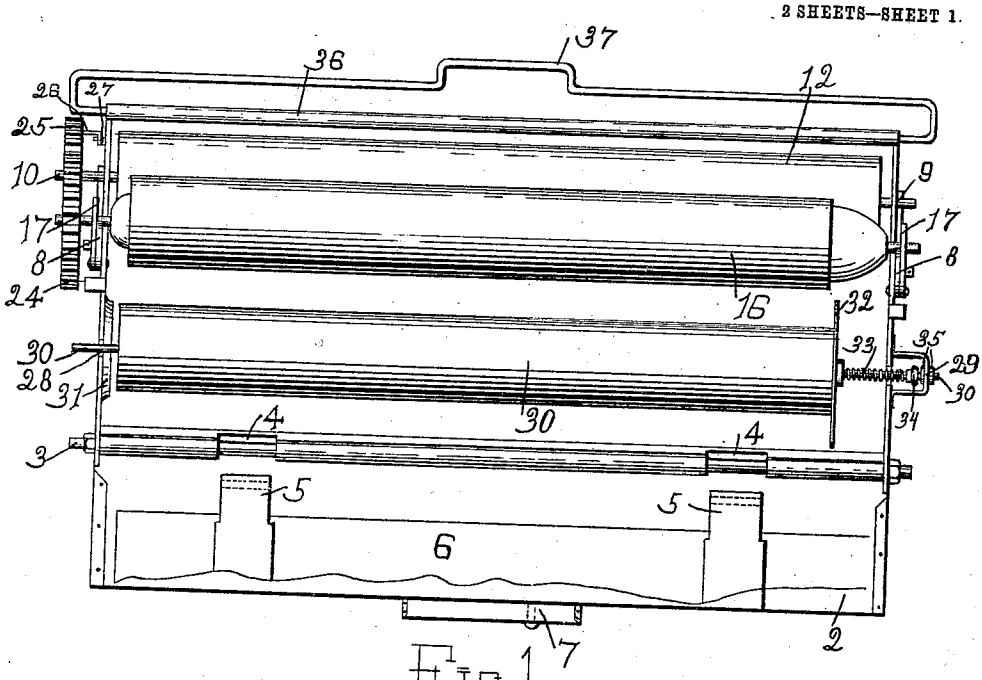


FIG. 1

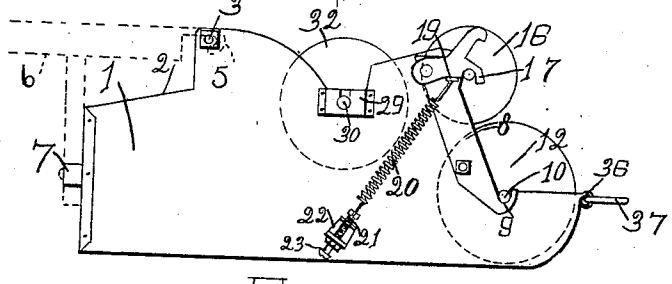


FIG. 2

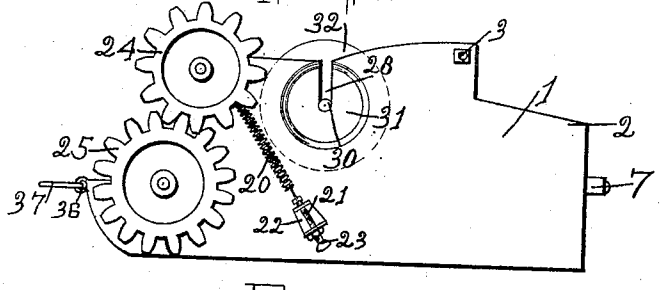


FIG. 3

Witnesses

J. Milton Jester

C. H. Griesbauer.

Inventor

A. D. Clingman.

by H. B. Williamson & Co

Attorneys

THE NORRIS PETERS CO., WASHINGTON, D. C.

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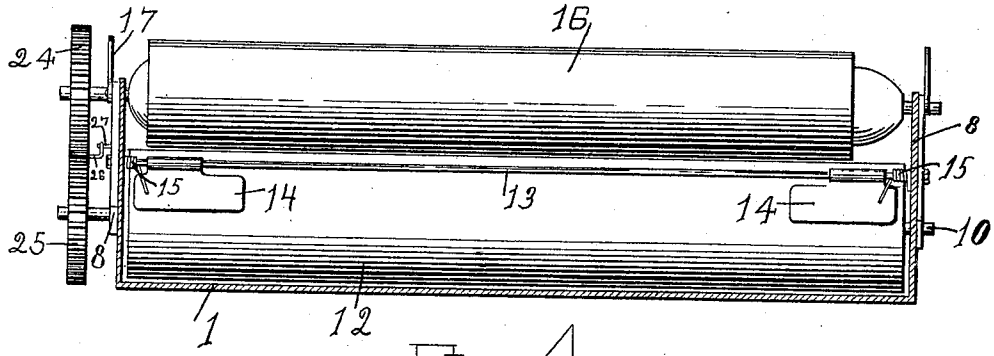


FIG. 4

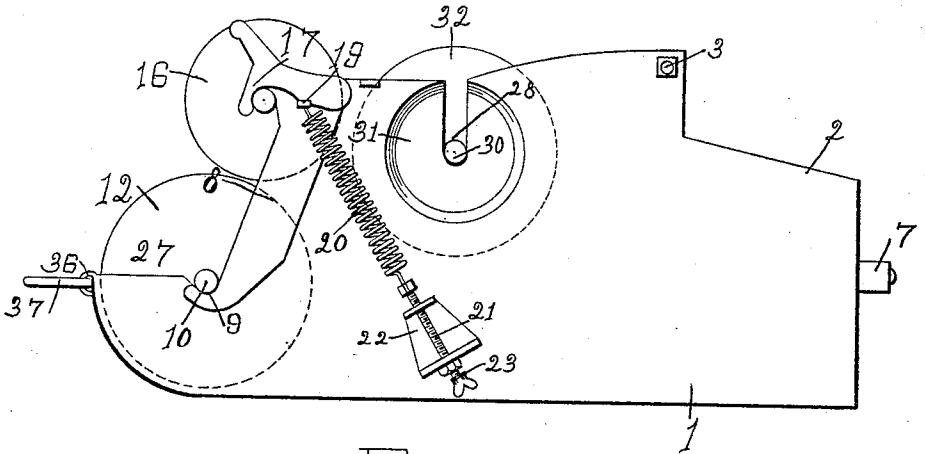


FIG. 5

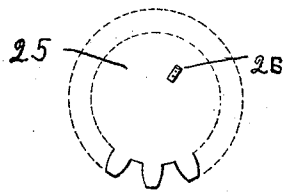


FIG. 6

Witnesses

J. Milton Jester.

C. N. Griesbauer.

Inventor

A. D. Clingman

by A. B. Williamson & Co.

Attorneys

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ARCHER D. CLINGMAN, OF OAKDALE, NEBRASKA.

PASTE-APPLYING MACHINE.

No. 856,224. Specification of Letters Patent. Patented June 11, 1907.

Application filed December 31, 1906. Serial No. 350,167.

To all whom it may concern:

Be it known that I, ARCHER D. CLINGMAN, a citizen of the United States, residing at Oakdale, in the county of Antelope and State of Nebraska, have invented certain new and useful Improvements in Paste-Applying Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in paste applying machines.

The object of the invention is to provide a machine of this character by means of which the desired quantity of paste may be quickly and easily applied to wall paper and the like, means being provided whereby the paste is prevented from being smeared over the edges and onto the outer surface of the paper.

A further object is to provide a device of this character having means whereby a greater or less amount of paste may be applied to the paper, as desired.

With the above and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings:—Figure 1 is a plan view of a paste applying machine constructed in accordance with the invention; Fig. 2 is an end view of one end of the machine; Fig. 3 is a similar view of the opposite end; Fig. 4 is a vertical cross sectional view; Fig. 5 is a detail end elevation of one end of the machine with the operating gears removed therefrom; and Fig. 6 is an inner side view of the gear wheel which is arranged on the end of the paste applying roller, showing the arrangement of the click spring thereon which engages a pin on the adjacent end of the paste tank at each complete revolution of the gear wheel to indicate to the operator the number of feet of paper being unwound from the rolls.

Referring more particularly to the drawings, 1 denotes the paste tank, which may be constructed in any suitable manner and formed of any suitable material, the same being here shown and is preferably of flat, rectangular shape and constructed of galvanized sheet metal. The rear side of the tank 1 is extended forwardly and upwardly between the opposite end pieces to form a partial cover 2 over the rear portion of the tank. The edge of the upwardly-bent cover portion 2 is turned to form a bead, through which is inserted a transversely-disposed supporting rod 3. The ends of the rod 3 are secured in the end pieces of the tank by nuts or other suitable fastening devices. A portion of the metal of the upwardly-bent end of the cover portion 2 is cut away adjacent to each end of the tank to form recesses 4, by means of which the rod 3 may be engaged with suitable hooks 5 secured to the end of the paste board 6, whereby the tank may be supported from said end of the board. On the rear side of the tank is pivotally-mounted an adjusting block or cleat 7, which when turned upwardly in a vertical position is adapted to engage the lower side of the paste board. The cleat or block 7 is pivoted nearer to one end than the other, so that when one end or the other is engaged with the paste board, the tank will be held in a more or less horizontal position, which will cause a greater or less quantity of paste to be directed toward the roller end of the tank, as will be understood.

The forward edges of the end pieces of the tank are cut to form bearing recesses, in which the ends of the paste applying rollers are mounted, said ends of the tank adjacent to the forward edges being re-inforced by bearing plates 8. In the lower end of the bearing plates 8 and in the adjacent edge of the ends of the tank are formed bearing recesses 9, in which are journaled the ends of the shaft 10 of a paste applying roller 12, said roller being arranged in the outer portion of the tank, as shown. The roller 12 is preferably covered with a suitable fabric adapted to take up the paste in suitable quantities from the tank and apply the same to the paper, as will be hereinafter more fully described.

Arranged in the ends of the tank adjacent to the inner side of the roller 12 is a scraper rod or shaft 13, upon which adjacent to each end of the roller 12 and bearing against the inner side of the same are downwardly-projecting scraper plates 14. The plates 14 are held in yielding engagement with the inner side of the roller 12 by means of coil springs 15. The scraper plates 14 are provided to remove a portion of the paste adhering to the roller 12 adjacent to its opposite ends, thus preventing said roller from applying more paste than is necessary to the paper near the edges thereof, thus reducing the danger of paste being smeared over the outer

edges of the paper and onto the outer side of the same.

Mounted on the outer edge of the end pieces of the tank is a pressing roller 16, around which the paper passes and by means of which said paper is held in engagement with the paste applying roller to cause an even supply of paste to be applied to the paper. The ends of the shaft of the roller 16 are engaged with the outer edges of the end of the tank and the bearing plates 8 and are held in engagement therewith and also in yielding engagement with the paste applying roller by means of hooks 17 pivotally-mounted on the outer sides of the plates 8, as shown. The hooks 17 are provided with laterally-projecting apertured lugs 19, to which are connected the upper ends of coil spring 20. The lower ends of the springs 20 are connected to adjusting bolts 21, said bolts passing through apertured lugs 22 on the outer ends of the tank and on the lower ends of said bolts 21 are screwed adjusting nuts 23, by means of which the tension of the springs 20 are adjusted to cause the hooks 17 to hold the pressing roller 16 into more or less tight engagement with the paste applying roller.

On one end of the pressing roller shaft is fixedly-mounted a gear wheel 24 adapted to be engaged with a gear 25 on the adjacent end of the paste roller shaft 10, whereby when said pressing roller is revolved by the paper drawn over or around the same, motion will be imparted to the paste-applying roller to turn the same in the opposite direction. The pressing roller 16 is preferably nine inches in circumference. The gear wheel 24 on the end of the pressing roll shaft is provided with twelve teeth while the gear wheel 25 on the paste roller shaft has sixteen teeth, so that for each foot of paper drawn over or around the pressing roller 16 the gear wheel 25 will be turned to the distance of one revolution. On the inner side of the gear wheel 25 is arranged an inwardly-projecting click spring 26 adapted to be brought into engagement with a pin or stud 27, which is fixed on and projects laterally from one end of the tank. The clicking sound made by the spring 26 when springing past the stud 27 will indicate to the operator each foot of paper pulled from the machine.

Journaled in a bearing recess 28 in one end of the tank and in a bearing bracket 29 on the opposite end is a paper roll shaft 30. On the shaft 30 is adapted to be placed the roll of paper, to which paste is to be applied. The end of the tank, in which the bearing recess 28 is formed, is provided with an inwardly-projecting annular offset 31. By means of the offset 31 the end of the roll is held out of engagement with the end of the tank, thus preventing the edge of the paper from being torn or mutilated by contact with said end when being drawn over the pressing roller. On the opposite end of the shaft 30 is slidably-mounted a guide disk 32, said disk being held in yielding engagement with the end of the roll by means of a coil spring 33 arranged on the spring 30 between the outer side of the disk 32 and a stop washer 34 fixedly-mounted on said shaft adjacent to the outer end thereof. The shaft 30 is also provided with stop washers 35 adapted to engage the opposite side of the bearing bracket to hold the shaft 30 in place. By means of the spring-pressed guide disk 32, the paper will be held in position on the shaft and cause it to unwind evenly therefrom when pulled through between the pressing and paste applying rollers.

On the upper edge of the front or outer side of the tank 1 is formed a bead 36, in which is secured the inwardly-turned ends of a carrying rod 37 that is bent midway between its ends to form a handle 28 by means of which the machine may be readily carried in the hand. When thus carried by the handle 38, the paste in the tank will run back or down into the closed rear end of the tank which will form the lower portion thereof when the machine is suspended from the carrying rod and handle.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention, as defined by the appended claims.

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

1. A paste applying machine comprising a tank, means to support said tank upon the end of a paste board, means to regulate the position of the same thereon, a paste applying roller revolubly-mounted in said tank, a paper roll shaft, means to guide and hold the paper in position when being unwound from said shaft, and a pressing roller to hold the paper in engagement with said paste applying roller, substantially as described.

2. A paste applying machine comprising a tank, means to support said tank on the end of the paste board, a paste applying roller revolubly-mounted in the forward side of said tank, means to remove the surplus paste from the ends of said roller, a revolubly-mounted paper roll shaft, a spring-projected guide disk on said shaft to engage the end of the roll thereon, a pressing roller, and means to hold the same in yielding engagement with said paste applying roller, substantially as described.

3. A paste applying machine comprising a

tank, a paste applying roller revolubly-mounted therein, spring-projected scraper plates adapted to be engaged with said roller adjacent to its opposite ends, a paper roll shaft revolubly-mounted in said tank, means to hold and guide the paper when drawn from said roller, a pressing roll, pivotally-mounted holding devices to engage the journals of said pressing roller to hold the same into engagement with said paste roll, an adjustably-mounted spring connected to said roll holding devices, and means arranged on one end of said pressing roll to turn said paste roll in a direction opposite to that in which the pressing roll is turned by the paper drawn over the same, substantially as described.

4. A paste applying machine comprising a tank, a paste applying roller revolubly-mounted in said tank, a gear wheel on one end of said roller, a paper roll shaft journaled in said tank, a pressing roller, pivotally-mounted hooks adapted to hold said pressing roller into engagement with bearing recesses formed in the end of said tank, springs connected to said hooks to hold said pressing roller in yielding engagement with said paste roller, adjusting bolts connected to said springs to regulate the tension thereof, and a gear wheel arranged on one end of said pressing roller to engage the gear wheel on the adjacent end of said paste roller whereby the latter is driven, substantially as described.

5. A paste applying machine comprising a tank covered or inclosed at one side to form a paste receptacle, a paste applying roller journaled in the opposite side of said tank, a gear wheel arranged on one end of the shaft of said roller, a revolubly-mounted paper roll shaft, a pressing roller, pivotally-mounted hooks adapted to be removably engaged with the ends of said pressing roller shaft to hold the same into engagement with the opposite ends of the tank and to hold said roller into engagement with the paste roller, adjustable presser springs connected to said hooks to force said pressing roller into engagement with the paste roller, a gear wheel mounted on the end of said pressure roll shaft to engage the gear on the adjacent end of the paste roller, the arrangement of said pressing roller and its gear being such that the gear wheel on the paste roller shaft will be turned one revolution for each foot of paper drawn over the pressing roller, and means on said paste roller gear to indicate each foot of paper pulled from the machine, substantially as described.

6. A paste applying machine comprising a tank covered or inclosed at one side to form a paste receptacle, a paste applying roller journaled in the opposite side of said tank, a gear wheel arranged on one end of the shaft of said roller, a revolubly-mounted paper roll shaft, a pressing roller, pivotally-mounted hooks adapted to be removably-engaged with the ends of said pressing roller shaft to hold the same into engagement with the opposite ends of the tank and to hold said roller into engagement with the paste roller, adjustable presser springs connected to said hooks to force said pressing roller into engagement with the paste roller, a gear wheel mounted on the end of said pressure roll shaft to engage the gear on the adjacent end of the paste roller, the arrangement of said pressing roller and its gear being such that the gear wheel on the paste roller shaft will be turned one revolution for each foot of paper drawn over the pressing roller, a projection on the end of said tank and a click spring on the inner side of said paste roller gear adapted to be brought into engagement with said projection at each complete revolution of said gear, thereby indicating to the operator when each foot of paper is drawn through the machine, substantially as described.

7. A paste applying machine comprising a tank closed or covered at one side to form a paste receptacle, a supporting rod, means on said tank whereby the same is supported upon hooks on the end of a paste board, a pivoted adjusting block on the inner side of said tank whereby the position of the same may be adjusted to regulate the flow of paste therein, a carrying rod arranged in the outer side of the tank, a handle formed on said rod whereby the tank may be carried in the hand, a fabric covered paste applying roller removably-mounted to revolve in said tank, a paper roll shaft revolubly-mounted in said tank, a spring projected guide disk to hold and guide the paper in position on said roll shaft, means formed in the opposite ends of the tank to hold the adjacent end of the roll out of engagement with the inner wall of said end of the tank, a pressing roller removably mounted on the ends of said tank, adjustable means to forcibly hold said roller into engagement with the paste roller, whereby the paper drawn from said paper roll shaft between said pressing roller and the paste roller will be evenly supplied with paste from the latter, means on the end of said pressing roller to turn said paste applying roller in the opposite direction, and means whereby each foot of paper pulled from the machine will be indicated to the operator, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ARCHER D. CLINGMAN.

Witnesses:

CHAS. H. FRADY,

D. B. OTIS.