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E. G. STAUDE

MEANS FOR ABRADING CARTON BLANKS

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FIG. 1

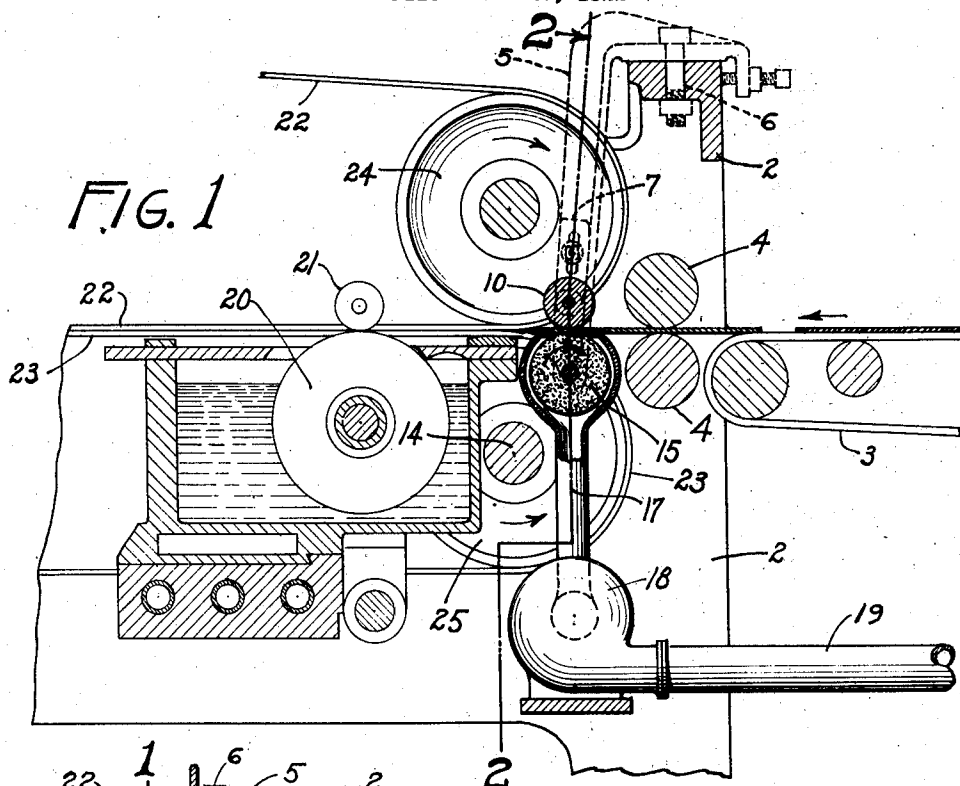
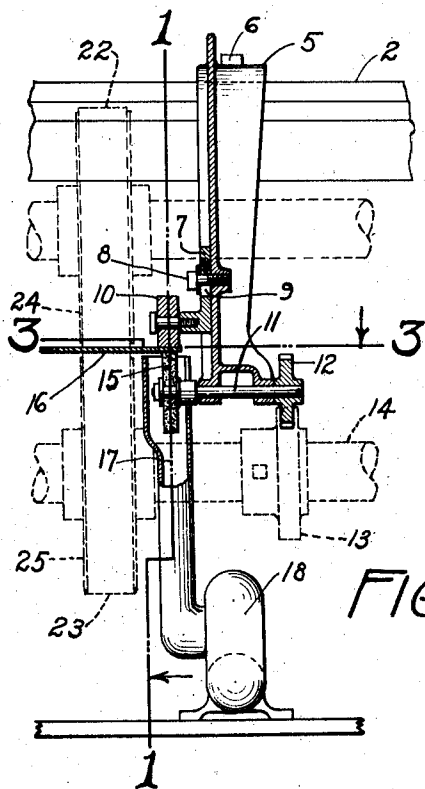
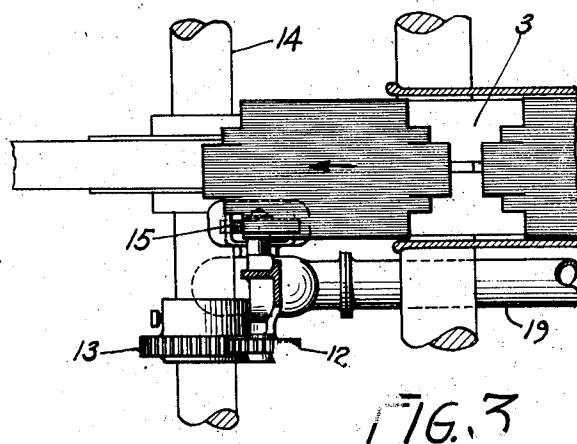


FIG. 2

FIG. 3

INVENTOR
EDWIN G. STAUDE

By Paul, Paul & Moore
ATTORNEYS

UNITED STATES PATENT OFFICE.

EDWIN G. STAUDE, OF MINNEAPOLIS, MINNESOTA.

MEANS FOR ABRADING CARTON BLANKS.

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In the manufacture of cartons or containers for various purposes, difficulty is frequently experienced in making the gummed flaps or edges of the cartons adhere to the surface of the stock and prevent the entrance of air into the carton and the consequent damage or deterioration of the contents. Usually, carton stock has a hard or glazed finish on its surface which the glue does not penetrate and to which the glue does not adhere sufficiently to permanently hold the edges together and hermitically seal them.

The object therefore of my invention is to provide an attachment for a carton or container-forming machine and adapted particularly for use with the gluing and sealing section of the machine.

The invention consists generally in various constructions and combinations all as hereinafter described and particularly pointed out in the claims.

In the accompanying drawings forming part of this specification,

Figure 1 is a sectional view illustrating the application of my invention with a gluing machine taken on the section line 1—1 of Figure 2;

Figure 2 is a sectional view on the line 2—2 of Figure 1;

Figure 3 is a sectional view on the line 3—3 of Figure 2.

In the drawing, 2 represents the frame of the machine having a belt conveyor 3 on which the blanks are fed to the rolls 4; 5 is an arm secured by suitable means such as bolts 6 to the frame of the machine, and 7 is a bracket slidable on said arm by means of a bolt 8, and a slot 9 in said bracket. A presser wheel 10 is carried by said bracket to rest upon the surface of the blank. Beneath the presser wheel, is a shaft 11 driven through gears 12 and 13 from an operating shaft 14 of the machine. On the shaft 11 is mounted an emery or other abrading wheel 15 is mounted having a comparatively narrow abrading face that is adapted to contact with the surface of the blank 16 as it is fed beneath the wheel 10, and remove the glaze or finish on the blank exposing the fibrous inner body which will readily absorb the glue or other adhesive when applied thereto. The emery wheel 15 is preferably arranged in a dust spout 17 connected with a fan 18 from which leads a discharge pipe 19.

When this fan is in operation, the dust caused by the removal of the glazed surface from the stock will be drawn down through the fan and discharged out of the machine.

As the wheel contacts with the stock, a narrow path from which the finish or glaze is removed, will appear in the stock surface ready to receive and absorb the glue or other adhesive that is applied thereto.

I have illustrated a glue pot adjacent the abrading wheel having wheels 20 and 21 between which the blank passes, the wheel 20 being partially submerged in the glue, its periphery gathering up the adhesive and applying it to the surface of the stock as the wheel revolves. The blanks leaving the emery wheel pass between the feed belts 22 and 23, supported by the wheels 24 and 25, and while so passing, the abraded flaps or edges will contact with the glue wheel for the application of a supply of adhesive thereto. This invention may be applied to any flexible material used in making containers or cartons whether press board, water-proof board, paraffine coated or waxed, clay coated, or foil covered; the purpose being to so abrade the surface of the material that the fibrous body beneath will be exposed and the glue or other adhesive applied thereto will be rapidly absorbed, so that when the blank is folded, its edges will be positively and permanently sealed.

I claim as my invention:

1. In combination with means for feeding a carton or container stock, of an abrading means for removing the hard outer surface of the stock to allow an adhesive to penetrate into the body of the stock.

2. In combination with means for feeding a carton or container blank, means for abrading the surface thereof to expose its fibrous body, and means for applying an adhesive to the surface so abraded.

3. In combination with a glue pot, means for feeding flexible blanks, and means for applying adhesive to the surface of the blank, means contacting with such surface before the application of the adhesive thereto for abrading or removing the glaze thereon to expose the fibrous interior.

4. In combination with a gluing machine having means for applying an adhesive to the surface of a carton blank, means for

feeding the blank, an emery wheel having a narrow face for contact with the surface of the blank to remove the glaze thereon, and means for pressing the blank against the surface of said wheel.

5. In a carton gluing machine, the combination with a glue pot having a means for applying an adhesive to the surface of a blank, of a wheel arranged on the receiving side of said glue pot and adapted to contact with a surface of the container blank for abrading or removing the glaze thereon preparatory to the application of the adhesive, a bracket mounted above said wheel and a pressure roller adjustably supported by said bracket and adapted to bear on the container and hold it against the surface of said abrading wheel.

6. An abrading attachment for a carton-making machine comprising a bracket having means for securing it to the frame of the machine, an abrading wheel having a shaft journaled in said bracket and a driving pinion, said wheel being mounted to contact with a surface of the carton preliminary to the application of an adhesive thereto for removing the hard outer

surface of the carton and exposing its inner softer material to the action of the adhesive, and means supported by said bracket for holding the carton in contact with the surface of said wheel.

7. In a carton gluing machine, the combination with a glue pot and means for applying an adhesive to the surface of a blank, of a wheel arranged on the receiving side of said glue pot and adapted to contact with a surface of the container blank for abrading or removing the glaze thereon preparatory to the application of the adhesive.

8. In a carton gluing machine, the combination with a glue pot and means for applying an adhesive to the surface of a blank, of means arranged on the receiving side of said glue pot and adapted to contact with a surface of the container blank for abrading or removing the glaze thereon preparatory to the application of the adhesive, and means for holding the container and said abrading means together.

In witness whereof, I have hereunto set my hand this 24th day of October, 1922.

EDWIN G. STAUDE.