March 3, 1936. A. MIDBOE 2,032,709

PAPER BAG MACHINE ATTACHMENT

Original Filed April 13, 1933 3 Sheets-Sheet 1

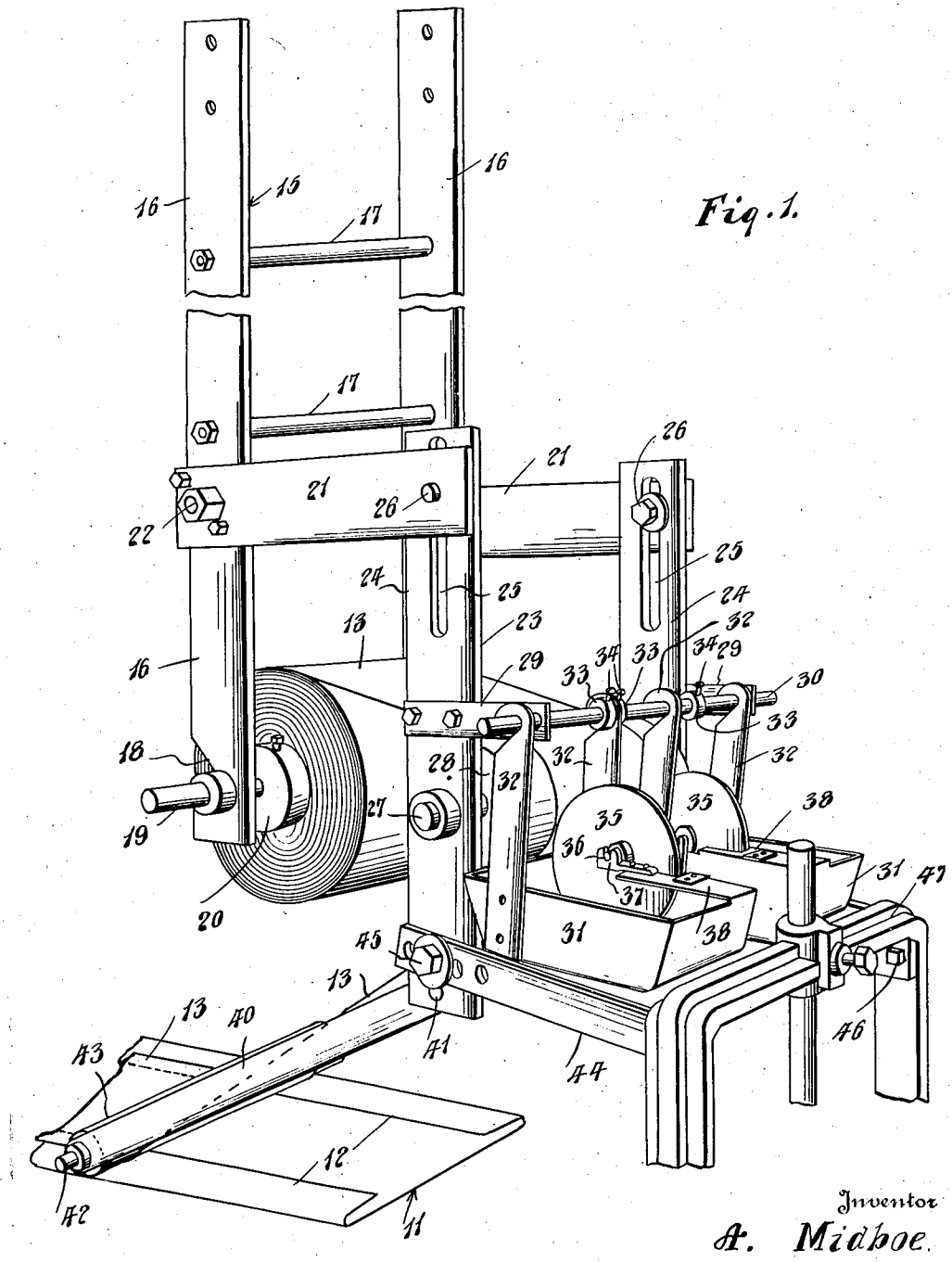


Fig. 1.

Inventor
A. Midboe.

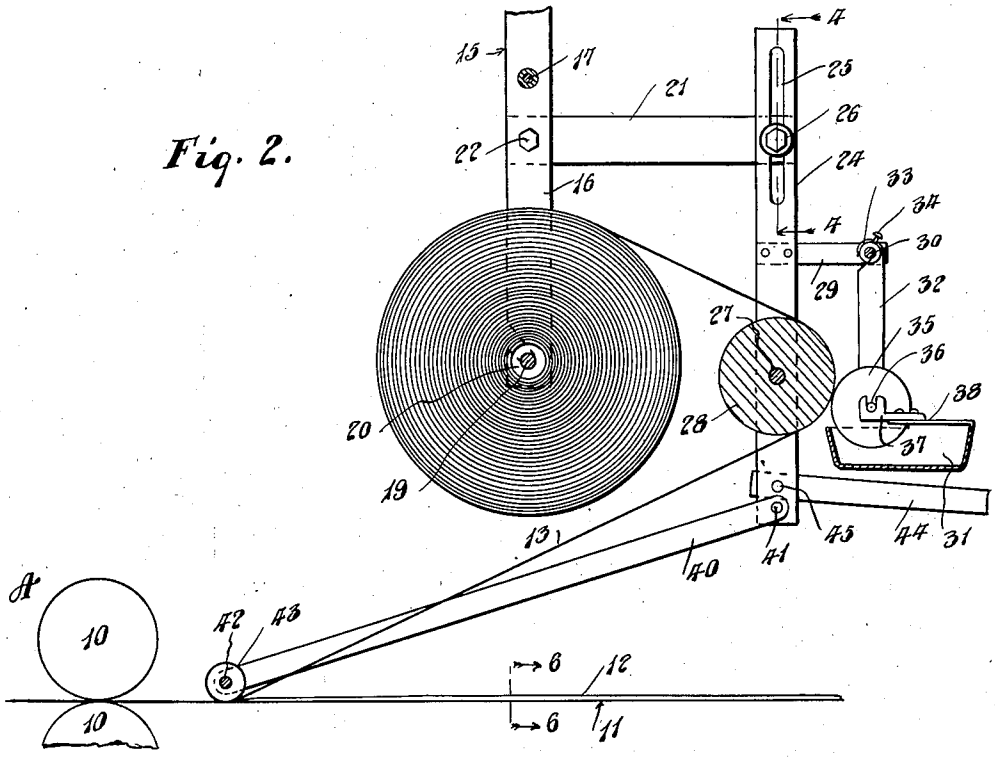
By L. F. Landreth Jr.
Attorney

March 3, 1936. A. MIDBOE 2,032,709

PAPER BAG MACHINE ATTACHMENT

Original Filed April 13, 1933 3 Sheets-Sheet 2

Fig. 2.



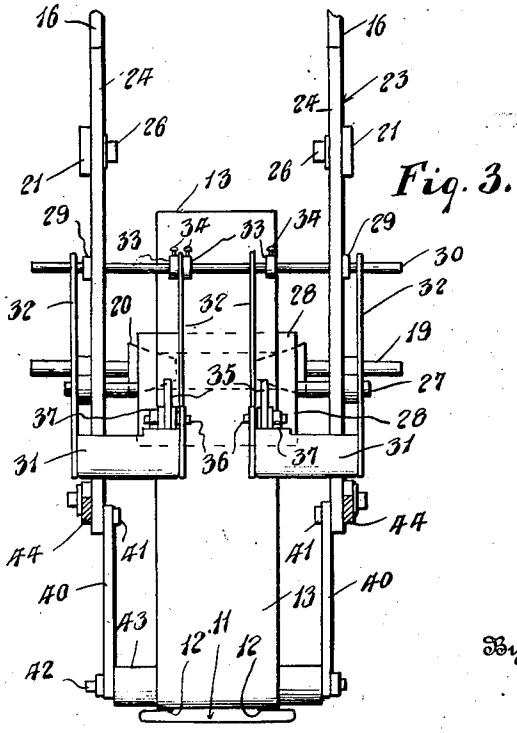


Fig. 3.

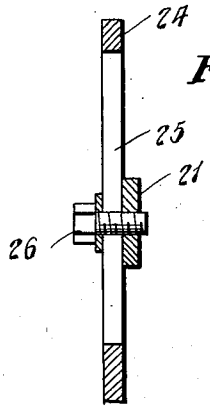


Fig. 4.

Inventor
A. Midboe.

By L. F. Randolph Jr.
Attorney

March 3, 1936. A. MIDBOE 2,032,709

PAPER BAG MACHINE ATTACHMENT

Original Filed April 13, 1933 3 Sheets-Sheet 3

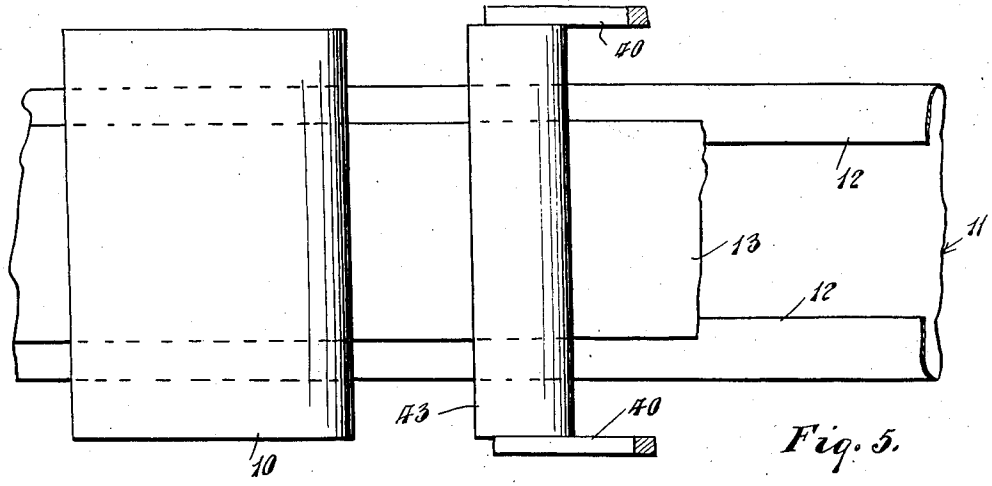


Fig. 5.

Fig. 6.

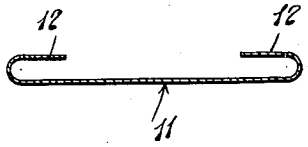


Fig. 7.

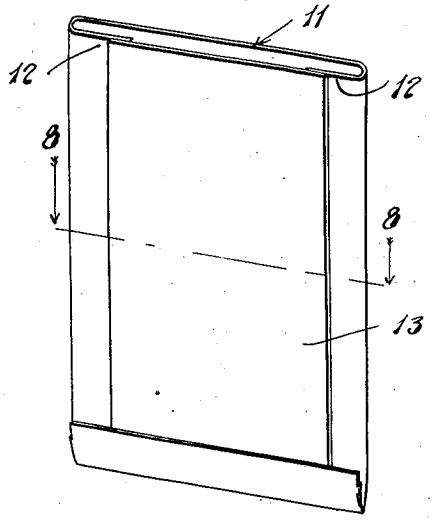
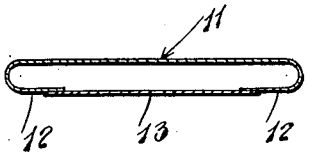


Fig. 8.



Inventor

A. Midboe.

By L. F. Thurbush Jr.

Attorney

Patented Mar. 3, 1936

2,032,709

UNITED STATES PATENT OFFICE

2,032,709

PAPER BAG MACHINE ATTACHMENT

Albert Midboe, Philadelphia, Pa., assignor to Equitable Paper Bag Co. Inc., Brooklyn, N. Y., a corporation of New York

Application April 13, 1933, Serial No. 666,034
Renewed December 12, 1935

4 Claims. (Cl. 93—20)

This invention relates to an attachment for paper bag making or equivalent machine and the main object is to provide a novel construction which will enable the same machine to make paper bags of two or more kinds of paper in a single operation and particularly to incorporate into the bag in a single operation, a transparent portion or window.

A particular object is to provide an exceedingly simple construction which may be readily brought into or out of operation with respect to the paper making machine; a construction which may be installed in connection with any type of bag making machine.

An important object is to provide a construction wherein the bag window or section is pasted near the draw-rollers of the machine, which feature overcomes a great deal of difficulty experienced in machines now in existence and also enables the construction to be greatly simplified and the cost of manufacture accordingly lessened.

The more specific objects and advantages will become apparent from a consideration of the description following taken in connection with accompanying drawings illustrating an operative embodiment.

In said drawings:—

Figure 1 is a perspective view illustrating the attachment,

Figure 2 is a central vertical sectional view through the attachment and in connection with a fragment of a bag making machine,

Figure 3 is a front elevation of the attachment,

Figure 4 is a cross sectional detail taken on the line 4—4 of Figure 2,

Figure 5 is a fragmentary horizontal section showing the application of the panel to the bag body,

Figure 6 is a cross section taken on line 6—6 of Figure 2,

Figure 7 is a perspective of the bag complete, and

Figure 8 is a cross section taken on line 8—8 of Figure 7.

Referring specifically to the drawings, the invention may be used in connection with any type of paper bag making or equivalent machine, irrespective of size, and as generally suggested at A. Of such machine, the feed rollers are shown at 10 between which a paper sheet in tubular form is normally adapted to pass and beyond which rollers of course the severing of the tube 11 is effected, and also, one end of the envelope is bent back and pasted to the remainder thereof to close one end of the envelope. In the present machine, in lieu of the paper 11 forming a complete tube, it merely has its edges 12 returned over the main portion of the sheet and disposed in spaced relation, the paper bag making machine A being so adjusted that no pasting of the portions 12 will occur and so that the only pasting operation will be that of the end of a complete tube to be bent back to close one end of the bag.

The present invention provides an attachment whereby as the sheet 11 is passing through the machine, a panel or strip 13 is placed in engagement therewith and pasted thereto by paste or adhesive at 14, engaging the portions or flanges 12 of the sheet 11, such paste 14 being subjected to pressure as the tube consisting of the portion 11 and panel 13 passes between the rollers 10. After passage between the rollers 10, the tube formed by the parts 11 and 13 is of course severed and one end portion turned back and pasted to form a complete bag, such operation being performed by the paper bag making machine A as usual in connection with tubing used in bag manufacture.

In accordance with my invention, a frame is provided at 15 consisting of bars 16, rigidly secured together in spaced relation by suitable means at 17. Such bars are preferably suspended from a ceiling or otherwise mounted in place so that they may be readily erected or detached with respect to the machine A.

The bars 16 at their lower ends are notched at 18, to form bearings for the shaft or trunnions 19 of a roll 20 around which the aforesaid paper or strip 13 is wrapped.

Suitable bars or arms 21 are fastened at 22 to the bars 16 and the same in turn suspend a frame 23. Frame 23 consists of a plurality of side members 24, having elongated slots at 25 through which bolts 26 pass to adjustably secure the bars to the members 21. Journaled in the bars 24 is a shaft 27 of a roller 28 over which the strip 13 passes.

Bracket arms 29 extend forwardly from the vertically adjustable arms 24 and they mount a rod 30. Detachably suspended on the rod 30 are a plurality of paste or adhesive receptacles 31, each receptacle having a pair of hooks 32 detachably engaging such rod 30. The receptacles are adjustable along the rod 30 and secured in adjusted position by means of adjustable collars 33 on said rod and coacting screws 34.

Each receptacle 31 has a roller 35 journaled therein by means of a shaft 36 in a bracket 37 carried by an overhanging portion 38 of the re-

ceptacle. Since the receptacles 31 are filled with paste or adhesive, the freely revoluble rollers 35 extend into the adhesive. Also, since the receptacles 31 are loosely suspended or pivoted on the rod 30, gravity causes the periphery of the wheel 35 to engage the paper or strip 13 at the portion thereof in contact with roller 28. Thus as the roller 28 moves and the paper moves, the wheels 35 will move and at their peripheries apply the lines 14 of paste or adhesive to the paper 13.

A pair of arms 40 are pivoted at 41 to the lower ends of the bars 24 and at their forward ends carry a shaft 42 mounting a guide roller 43. The paper 13 passes under and is guided by the roller 43 into contact with the paper sheet 11 and since the adhesive 14 is on the under surface of the sheet 13, such sheet 13 will be smoothed or evenly applied with respect to the sheet 11 and thus sheets 11 and 13 effectively pressed together as they pass between the feed rollers 10.

The attachment is steadied by means of bars 44 which are adjustably secured to the bars 24 at 45, and detachably connected in any suitable manner as at 46, to a stationary arch or other part 47 of the machine A.

It will be realized that the strip 13 may be of a different material from the strip 11 although if desired it may be of the same material. Usually the strip 13 is of transparent material to form a window.

Various changes may be resorted to provided they fall within the spirit and scope of the invention.

I claim as my invention:—

1. An attachment of the class described having a strip supplying roller and means to mount said strip supplying roller, a guide roller over which the paper passes, means to supply adhesive adjacent opposite side edges of the strip as it passes over the second mentioned roller, comprising a pair of adhesive applying wheels, receptacle means to contain adhesive and in which said wheels operate, means suspending said receptacle means whereby gravity will maintain the wheels in contact with the strip, said guide roller being disposed between the strip supplying roller and said second mentioned means, and means to reverse the direction of movement of the strip after leaving the guide roller and applying it to another strip below and beyond the strip supplying roller on the side of the axis of rotation thereof opposite to the guide roller.

2. An attachment of the class described having a strip supplying roller and means to mount said strip supplying roller, a roller over which the strip passes and by which the strip is applied to another strip, means to supply adhesive adjacent opposite side edges of the strip before it is engaged by the second mentioned roller, comprising a pair of adhesive applying wheels, receptacle means to contain adhesive and in which said wheels operate, said second mentioned roller and means being located on opposite sides of the axis of rotation of the strip supplying roller, means suspending said receptacle means whereby gravity will maintain the wheels in contact with the strip, arms extending from the attachment beneath the strip supplying roller mounting said roller.

3. An attachment of the class described comprising a frame, a strip supplying roller mounted in said frame, a second frame offset from the first frame, a roller on the second frame, a rod on the second frame, said strip being adapted to pass over the second mentioned roller, an adhesive applying wheel to engage the strip, a receptacle to contain adhesive in which said wheel operates, and means loosely suspending the receptacle on said rod whereby gravity will cause the wheel to contact with the strip.

4. An attachment of the class described comprising a frame, a strip supplying roller mounted in said frame, a second frame offset from the first frame, a roller on the second frame, a rod on the second frame, said strip being adapted to pass over the second mentioned roller, an adhesive applying wheel to engage the strip, a receptacle to contain adhesive in which said wheel operates, means loosely suspending the receptacle on said rod whereby gravity will cause the wheel to contact with the strip, said means comprising hooks, means to attach the second mentioned frame to a part of a paper making machine, and guide means for the strip as it leaves the attachment.

ALBERT MIDBOE.