June 14, 1955 W. P. FERGNANI 2,710,752

BOX BLANK FEEDING MAGAZINE

Original Filed June 26, 1952 2 Sheets-Sheet 1

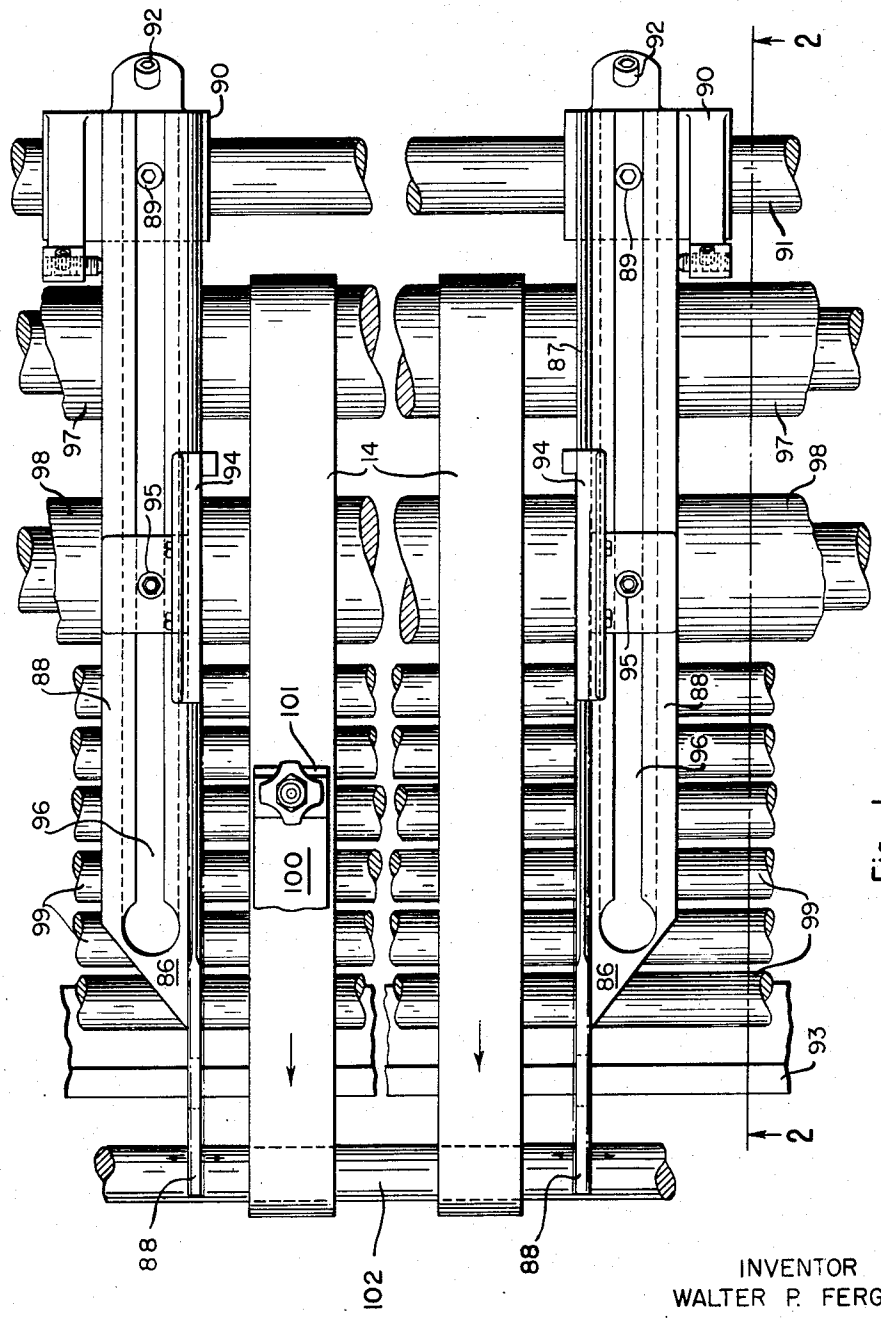


Fig. 1

INVENTOR
WALTER P. FERGNANI

BY
Kenway, Jenney, Witter & Hildreth
ATTORNEYS

June 14, 1955 W. P. FERGNANI 2,710,752

BOX BLANK FEEDING MAGAZINE

Original Filed June 26, 1952 2 Sheets-Sheet 2

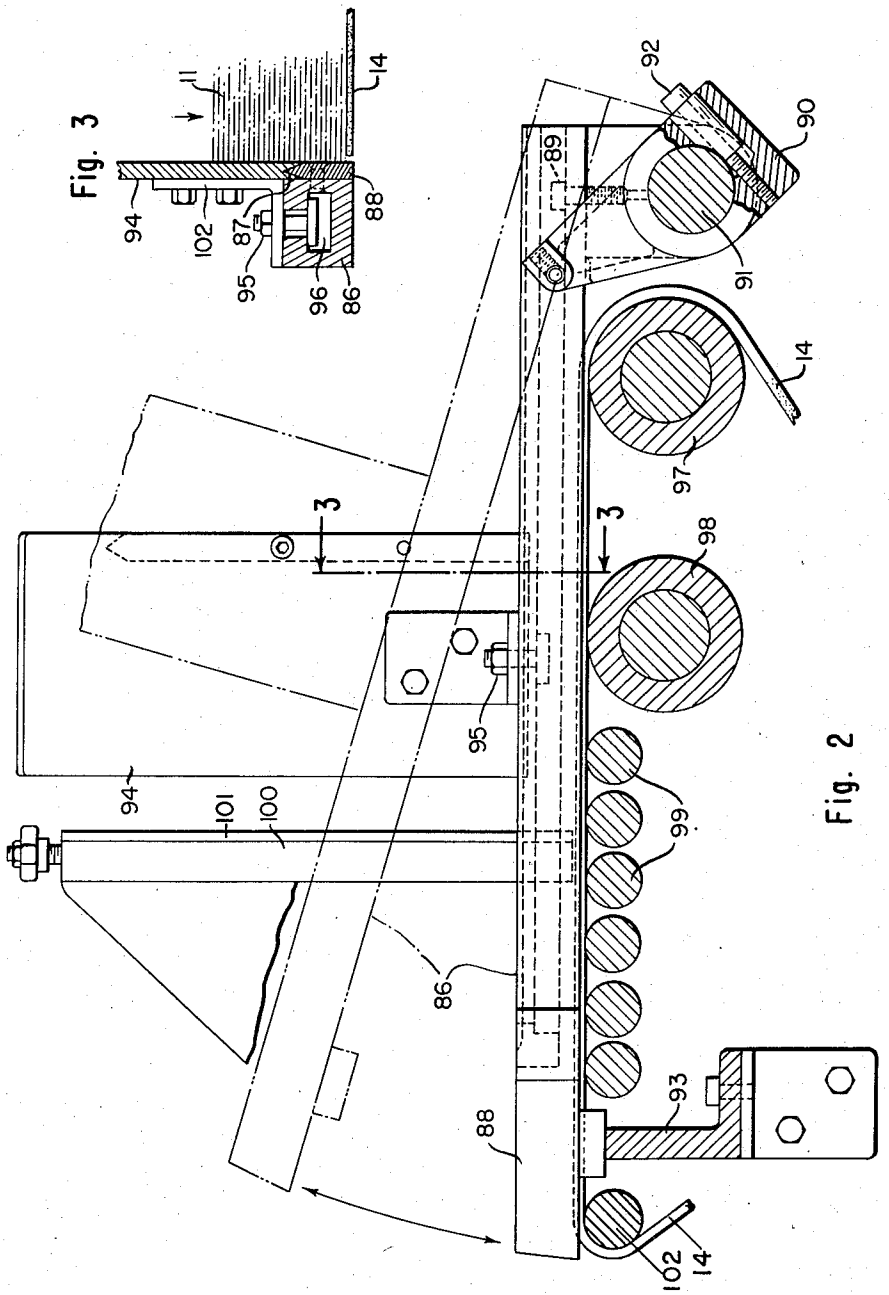


Fig. 2

INVENTOR
WALTER P. FERGNANI

BY
Kenway, Jenney, Witter & Hildreth
ATTORNEYS

United States Patent Office 2,710,752
Patented June 14, 1955

2,710,752

BOX BLANK FEEDING MAGAZINE

Walter P. Fergnani, Beverly, Mass., assignor to Post Machinery Company, Beverly, Mass., a corporation of Massachusetts

Original application June 26, 1948, Serial No. 35,385. Divided and this application September 12, 1951, Serial No. 246,288

3 Claims. (Cl. 271—35)

This invention relates to a machine for feeding flat box blanks successively from a stack to and along a predetermined path and folding the blanks into overlapped and sealed relation during their passage through the machine. The machine is adjustable to handle blanks varying in width and the primary object of the invention herein defined relates to an improved magazine for holding the stack of blanks and embodying a novel construction and arrangement for conveniently adjusting the magazine to handle blanks of different widths and to feed them with superior accuracy and efficiency.

These and other features of the invention will be best understood and appreciated from the following description of a preferred embodiment thereof selected for purposes of illustration and shown in the accompanying drawings in which,

Fig. 1 is a plan view of the blank feeding magazine at the forward end of a box blank folding machine,

Fig. 2 is a sectional side elevation taken on line 2—2 of Fig. 1, and

Fig. 3 is a fragmentary sectional view taken on line 3—3 of Fig. 2.

The blank feeding magazine shown in the drawings is located at the rear end of the blank folding machine shown in my copending application Serial No. 35,385, filed June 26, 1948 and now Patent 2,584,855 comprises two side bars **86** each supported for lateral pivotal movement on and about a stud **89** securing the front ends of the bars to a clamp bracket **90** rotatably adjustable on a rod **91**. Screws **92** are provided for clamping the brackets to the rod. The free ends of the bars **86** are adapted to rest on a cross bar **93** of the frame. A plate **88** is secured to and extends along the inner face of each bar **86** and the top edge of each plate is beveled to provide a V-shaped track **87** for receiving and guiding an upwardly extending hopper plate **94** as shown in Fig. 3. Each plate **94** carries a bracket **102** engaged by a bolt **95** adjustable in a slot **96** in and along each bar. The bolts are adapted to secure the plates **94** in adjusted position along the bars. The rearward end loops of the belts **14** are supported on a roll **97** and the top reaches of the belts ride on rolls **98** and **99**. The forward loops of the belts **14** are carried on a shaft **102**. The belts are adapted to feed the bottom blank of the stack through a gap between the vertically adjustable blade **101** and one of the belts **14** at the bottom end of an abutment **100** to the carrier belts of the machine.

It will be apparent that the bars **86** can be adjusted laterally to a spacing to accommodate blanks of different widths. It is necessary during such adjustment to vary the position of the belts **14** relative to the bars and to pass the bars over the belts. My novel arrangement of the bars on the rod **91** beyond the roll **97** permits such adjustment merely by pivoting the bars upwardly to clear the belts, thus considerably simplifying these adjustments. Furthermore it is frequently desirable to place the bars in a non-parallel position at a somewhat narrower width at their free inner ends whereby accurately to center the blank as it is fed from the stack to the machine. The pivotal mounting of the bars on the studs **89** provides a convenient adjustment for this purpose. The mounting of the bars **86** on a rod **91** disposed beneath the blank feeding path provides a more compact construction and eliminates overhead structure present in stack guiding and feeding mechanisms heretofore employed.

This application is a division of my copending application Serial No. 35,385, filed June 26, 1948.

Having thus disclosed my invention what I claim as new and desire to secure by Letters Patent is:

1. Box blank feeding mechanism comprising a plurality of endless belts, front and rear rotary members supporting the end loops of the belts with the top reaches thereof disposed horizontally and in lateral alignment, a rod parallel with and disposed rearwardly of the rear belt supporting member and beneath the plane of said top reaches, two brackets mounted for rotary adjustment on the rod, two relatively long guide bars, means securing the rear ends of the guide bars respectively to the brackets, means supporting the bars horizontally at opposite sides of and in lateral alignment with said reaches, and two upwardly extending plates carried by the bars at opposite sides of said reaches for guiding a stack of blanks therebetween, the guide bars being pivotally movable upwardly about the rod to a position above and out of lateral alignment with said top reaches and permitting free relative shifting of the belts and guide bars laterally.

2. The combination defined in claim 1 in which the securing means between each guide bar and its bracket includes a bolt about which the bar is pivotally adjustable laterally.

3. The combination defined in claim 1 plus a track fixed to and extending along the inner face of each guide bar, means providing sliding engagement of each vertical plate with the adjacent track, and means including a bracket fixed to each vertical plate and a cooperating member engaging the adjacent guide bar for securing the plates in adjusted position to the guide bars.

References Cited in the file of this patent

UNITED STATES PATENTS

747,395	Fales	Dec. 22, 1903
926,205	Morgan	June 29, 1909
1,202,315	Reifsnyder	Oct. 24, 1916
1,202,333	Tucker	Oct. 24, 1916
1,279,311	Feybusch	Sept. 17, 1918
1,352,284	LaBombard	Sept. 7, 1920
1,792,878	Wagner	Feb. 17, 1931
2,192,265	Kallander	May 5, 1940
2,235,377	Laxo	Mar. 18, 1941