H. A. INMAN.

PASTING MACHINE.

APPLICATION FILED NOV. 15, 1911.

1,036,851.

Patented Aug. 27, 1912.

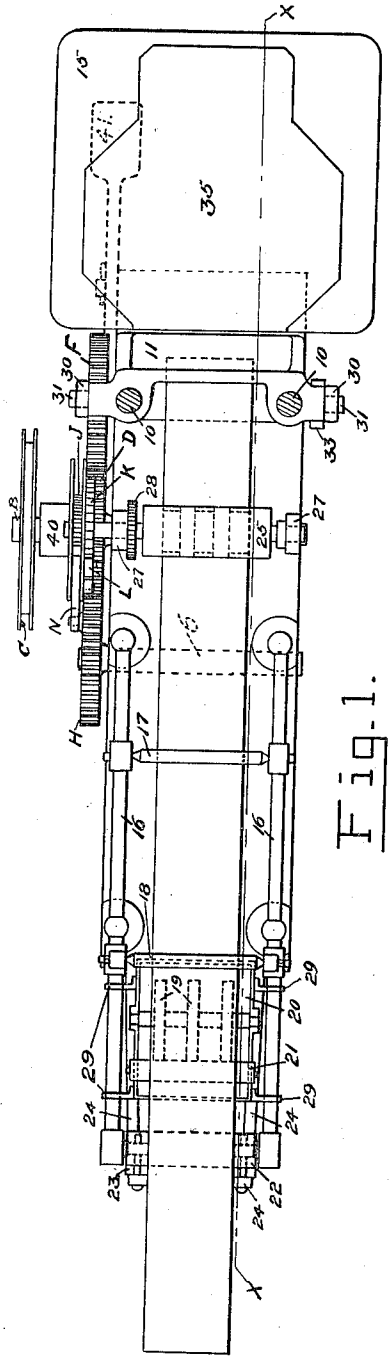

Fig. 1.

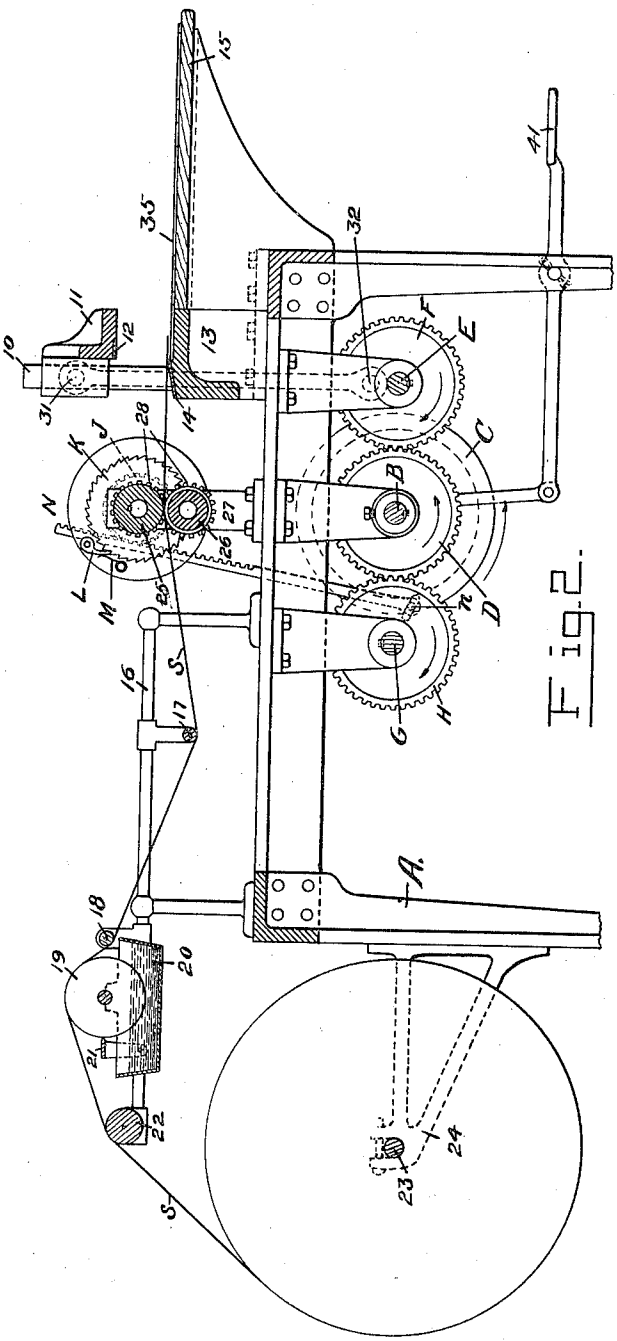

Fig. 2.

WITNESSES:

Reta Van Der Volgen

Marion Ashelund.

INVENTOR

Harry A. Inman

BY

Walter E. Ward

ATTY

UNITED STATES PATENT OFFICE.

HARRY A. INMAN, OF AMSTERDAM, NEW YORK.

PASTING-MACHINE.

1,036,851. Specification of Letters Patent. Patented Aug. 27, 1912.

Application filed November 15, 1911. Serial No. 660,445.

To all whom it may concern:

Be it known that I, HARRY A. INMAN, a citizen of the United States, residing at Amsterdam, in the county of Montgomery and State of New York, have invented certain new and useful Improvements in Pasting-Machines, of which the following is a specification.

My invention relates to pasting machines and the objects of my invention are to construct a machine by which paste or glue may be applied to long strips of paper and the strips of paper cut off in desired lengths and pasted or glued upon the desired material.

Other objects of my invention will appear as I proceed with the description of the machine.

I obtain these objects by means of the mechanism illustrated in the accompanying drawing in which—

Figure 1 is a plan view of my machine. Fig. 2 is a sectional elevation along the lines X, X, Fig. 1.

Similar letters and numerals refer to similar parts throughout the several views.

The machine consists of a frame or table A.

B, E and G are shafts mounted in suitable bearings in or attached to the frame A. The shaft B is a driving shaft and has loosely mounted upon one end thereof the pulley C by which the power is applied. There is also fastened on the shaft B the gear wheel D which meshes with and drives the gear wheel F mounted upon the shaft E and the gear wheel H mounted upon the shaft G. Mounted upon the supporting rails 16, 16 on the top of the frame A are suitable bearings for the rollers 17, 18 and 22.

20 is a vat adapted to contain liquid glue or paste. Attached to the sides of the vat are lugs 29, 29 by which the vat 20 is supported upon the rails 16, 16. The rollers 19, 19 are mounted upon a shaft in bearings formed in the sides of the vat 20 so that the lower portion of the rollers will be located within the vat 20 and submerged in the viscous substance contained in the vat so that the rollers 19, 19 will carry glue from the vat 20 to the strip of paper passing over the rollers. A scraper 21 is attached to the vat in any suitable manner so as to remove surplus paste from the rollers 19, 19.

S is the roll of paper to be pasted and is mounted upon the roller 23 supported by the brackets 24, 24 from the frame A.

22 is a guide roller mounted upon the supporting rails 16, 16 in such a position as to properly guide the paper from the roller 23 to the pasting rollers 19, 19. The strip of paper to be pasted or glued is passed over the roller 22 and over the pasting rollers 19, 19 and under the guide rollers 18 and 17 and through the feed rolls 25 and 26 and between the knives 12 and 14 to the table 15. The rollers 17 and 18 also serve to hold the strip at proper tension.

12 is a knife mounted in the movable presser foot 11.

14 is a stationary knife mounted upon the bed-plate 13. The feed rolls 25 and 26 are mounted in the uprights 27, 27 on the frame A and are geared together. Power is applied to the roll 25 by means of the notched rack N operated by the gear wheel H and meshing with the notched teeth upon the pinion J mounted loosely upon the projecting end of the shaft of the feed roll 25. The rack N is attached to the gear wheel H by the pin *n*. By adjusting the position of the pin *n* in the slot in the gear wheel H the length of the feed and the length at which the strips of paper are cut off may be regulated as desired. The pinion J has guide plates fixedly attached to each side thereof. To one of these guide plates is attached the pawl L adapted to engage in the notched wheel K attached to the shaft of the feed roll 25. The pawl L is held in engagement with the wheel K by the spring M.

On the frame A is mounted the bed-plate 13 to which is fixed the stationary knife 14. At each end of the bed-plate 13 are fixed vertical guide rods 10, 10. The presser foot 11 has pins 31, 31 projecting from each end. The pins 31, 31 are connected by links 30, 30 and by the pins 32, 32 to the gear wheel F and the crank 33. The gear wheel F and the crank 33 are fastened on opposite ends of the shaft E. 35 represents the work or material lying on the table 15 to which the strips are to be pasted. The shaft B also has a clutch 40 of any suitable construction mounted upon it and adapted to be thrown in or out of engagement with the pulley C by means of the foot pedal 41 or any similar suitable arrangement. The operator pressing upon the foot pedal 41 or standing upon it causes the clutch to engage and the shaft B to revolve. By continuing the weight upon the pedal the machine will run and feed the paper through it continuously or

the operator may press down simply long enough for the shaft to make one revolution and one operation of the cutter and presser foot at a time.

The operation of my pasting machine is as follows: The power is applied to the pulley C causing it to revolve in the directions indicated by the arrow as shown in Fig. 2. The pulley C being loosely mounted upon the shaft B runs continuously and causes the shaft B to revolve carrying with it the gear wheel D only when pressure upon the foot pedal 41 causes the clutch 40 to engage the pulley C. The gear wheel D causes the gear wheels F and H to revolve in the directions indicated. The pin *n* on the gear wheel H being eccentric will impart an upward and downward movement to the rack N and cause the pinion J and the guide plates to oscillate thus carrying the pawl L up and down and backward and forward. Each time the rack N moves back it engages the notched wheel K and causes the feed rolls 25 and 26 to revolve and feed forward the strip of paper S. The pins 32, 32 on the gear wheel F and the crank 33 being eccentric and in line with each other will impart an upward and downward motion to the presser foot 11 carrying the knife 12. The length of the stroke of the presser foot 11 is so adjusted that it will cause the knife to shear or cut off the portion of the paper fed between the knives and continues the downward stroke a sufficient distance to cause the presser foot 11 to press the severed part of the strip S upon the material 35 upon which it is to be pasted.

Constructed in this way the pasting machine in one operation will take the paper from the roll and apply the glue in strips and cut off the strips in the desired lengths and paste them upon the material to which it is desired to be pasted. The machine is especially designed for making paper boxes and pasting the strips upon the blanks from which the paper boxes are folded but it may be used for any other purpose where it is desired to paste strips upon something.

What I claim as my invention and desire to secure by Letters Patent is,

In a pasting machine, a frame, a paste vat mounted upon said frame, a pasting roller mounted in said paste vat, feed rollers mounted upon said frame and adapted to feed a strip of paper through said machine, a presser foot carrying a cutter knife mounted upon said frame, an eccentric adapted to turn said feed rollers by a rack and ratchet, a second eccentric adapted to move said presser foot and cutter knife synchronically with the movement of said feed rolls, a power roller located between said eccentrics and adapted to turn each eccentric simultaneously whereby the strip of paper will be fed through the machine and paste applied to the under side thereof and the end cut off and pressed upon the goods upon which it is desired to be pasted with each revolution of the power roller.

In testimony whereof I affix my signature in presence of two witnesses.

HARRY A. INMAN.

Witnesses:
WALTER E. WARD,
RETA VAN DER VOLGEN.