H. R. GILL.

MACHINE FOR FORMING ROLLS ON TOY BALLOONS.

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1,346,706.

Patented July 13, 1920.

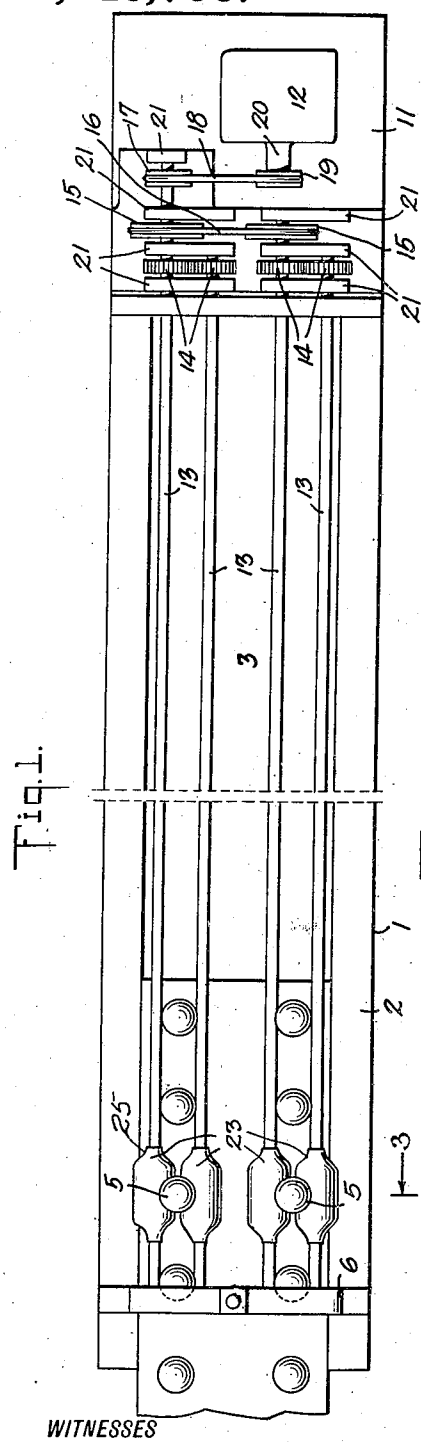


Fig. 1.

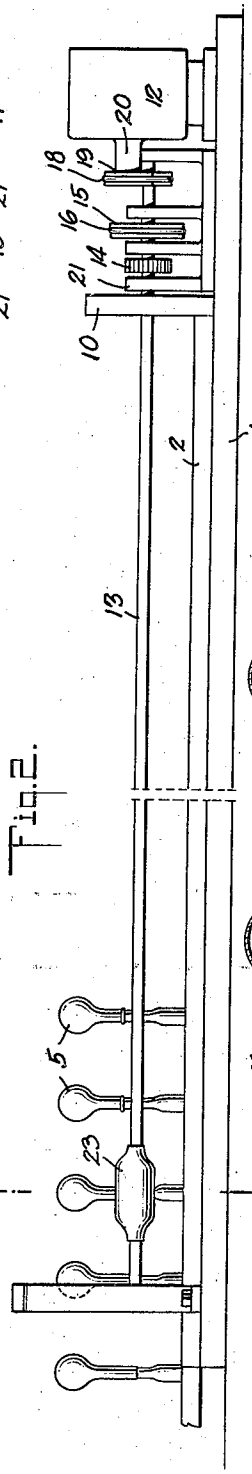


Fig. 2.

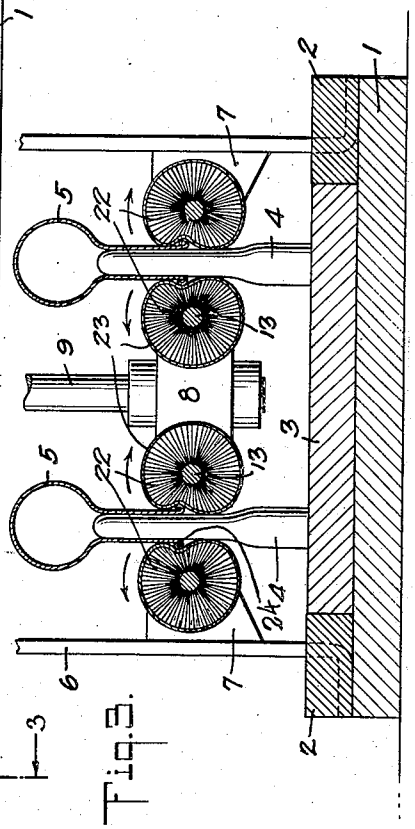


Fig. 3.

WITNESSES

Frederick Diehl.

S. W. Foster

INVENTOR

H. R. Gill.

BY Munn & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

HARRY R. GILL, OF ASHLAND, OHIO.

MACHINE FOR FORMING ROLLS ON TOY BALLOONS.

1,346,706. Specification of Letters Patent. Patented July 13, 1920.

Application filed August 26, 1919. Serial No. 320,018.

To all whom it may concern:

Be it known that I, HARRY R. GILL, a citizen of the United States, and a resident of the city of Ashland, in the county of Ashland and State of Ohio, have invented a new and Improved Machine for Forming Rolls on Toy Balloons, of which the following is a full, clear, and exact description.

This invention relates to improvements in machines for forming rolls on toy balloons, an object of the invention being to provide an improved arrangement of rotary brushes, having flexible covers thereon of chamois, muslin, cheesecloth or other suitable material, which frictionally engage the open end portions of the toy balloons and roll the same to form a bead thereon.

A further object is to provide improved means for guiding and feeding the balloons to the bead forming devices and provide improved mounting and driving mechanism for the shafts operating the bead forming devices.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings:

Figure 1 is a plan view illustrating my improvements.

Fig. 2 is a view in side elevation.

Fig. 3 is an enlarged view in section on the line 3—3 of Fig. 2.

1 represents a base having strips 2 secured thereon, at its edges and forming a guide for a form board 3.

Parallel series of forms 4 are secured to the form board and are adapted to support the balloons 5, and while I have illustrated two series of forms on the board, it is obvious that any number may be employed, with corresponding modification of the machine to accommodate the same.

A rectangular frame 6 is secured to the base 1 and is of a size to allow the form board to be moved through the same.

The side members of the frame 6 support brackets 7, and a bracket 8 is suspended from the horizontal and central position of the frame, by means of a hanger 9.

A relatively wide bracket 10 is fixed on the base 1 at a point removed from one end thereof, to provide a supporting platform 11 on the base, to accommodate a motor 12 and power transmitting mechanism which will be hereinafter described.

Horizontal shafts 13, arranged in pairs, are supported in the brackets 7, 8 and 10, and the pairs of shafts 13 have spur gears 14 thereon, meshing with each other, and compelling the shafts to turn at a uniform speed in opposite direction.

One shaft 13 of each pair constitutes a driver and has a pulley 15 secured thereon. The pulleys 15 are connected by an endless belt 16 and one of said driving shafts 13 has a pulley 17 thereon, connected by an endless belt 18, with a pulley 19 on the motor shaft 20.

Suitable supports 21 are provided on the platform for the driven ends of the shafts 13 as shown in Figs. 1 and 2.

On each shaft 13 a rotary brush 22 is secured, and a cover 23 of chamois, muslin, cheesecloth or other suitable flexible material, incloses the bristles of the brush and provides a yielding friction surface to rub against the ends of the balloons 5, supported on the forms 4, and curls or rolls the ends of the balloons to form beads 24 thereon.

As the form board is slid in and out of the guide formed by base 1 and strips 2, the forms 4 will bring the balloons into contact with the covered brushes, and the rolls or beads 24 will be quickly and uniformly made.

The covered brushes 22 form in effect yielding cushions having friction surfaces which by reason of the cover 23 perform a superior service than would the bristles without the same.

The covers 23 may have reduced ends 25 fitting snugly around the shafts 13 but I do not wish to be limited to the details of construction of the cover. It is however, to be understood that the cover should fit the brush so as to turn therewith and not slip thereon.

Various slight changes might be made in the general form of the parts described without departing from my invention, and hence I do not limit myself to the precise details set forth but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of the appended claims.

I claim:

1. A machine of the character described, comprising a support, a form on the support adapted to receive a toy balloon there-

on, a brush located at right angles to the form and adapted to be turned so that the bristles of the brush operate to roll a bead on the end of the toy balloon, and a flexible cover on the brush.

2. A machine of the character described, comprising a support, a form on the support adapted to receive a toy balloon thereon, a brush located at right angles to the form and adapted to be turned so that the bristles of the brush operate to roll a bead on the end of the toy balloon, and a flexible cover positioned around the brush and having reduced ends at the ends of the brush.

3. A machine of the character described, comprising a base, horizontal shafts located above the base, rotary brushes on the horizontal shafts arranged in pairs, a form board adapted to slide longitudinally of the base, a series of vertically positioned forms adapted to support toy balloons in position to be engaged by the brushes, whereby the latter operate to roll beads on the ends of the toy balloons, and flexible covers on the brushes having reduced ends at the ends of the brushes.

HARRY R. GILL.