

(No Model.)

2 Sheets—Sheet 1.

H. MOONEY.
GUMMING MACHINE.

No. 469,583.

Patented Feb. 23, 1892.

Fig: 1.

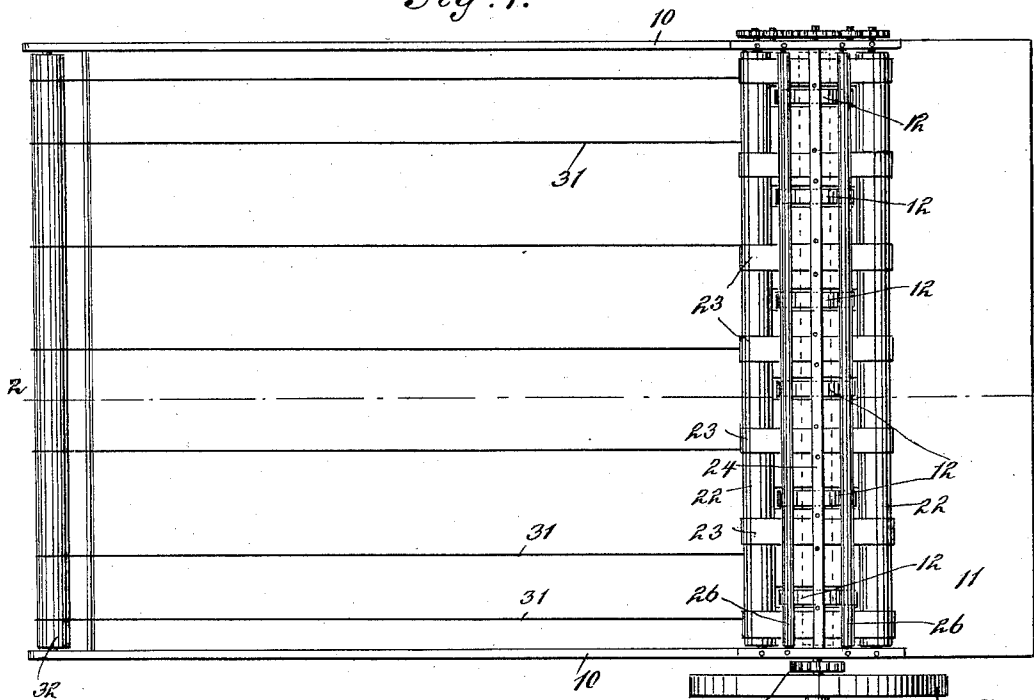


Fig: 2.

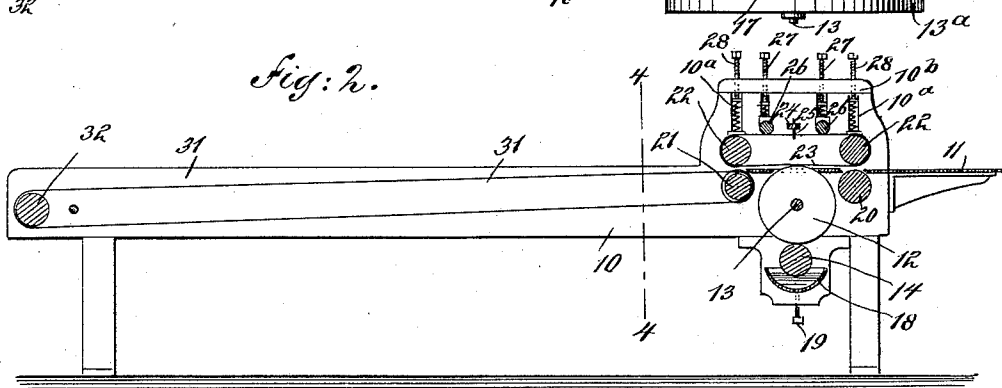
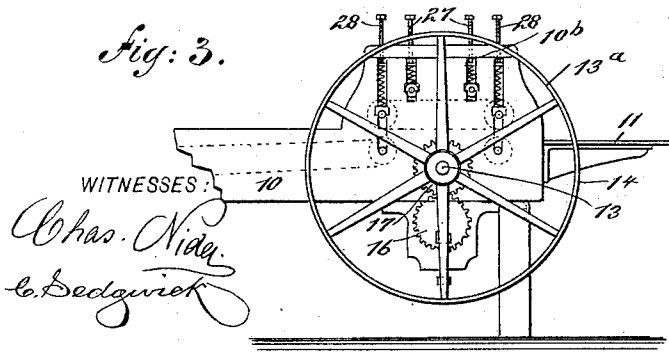


Fig: 3.



INVENTOR :

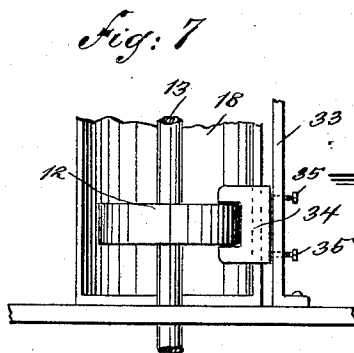
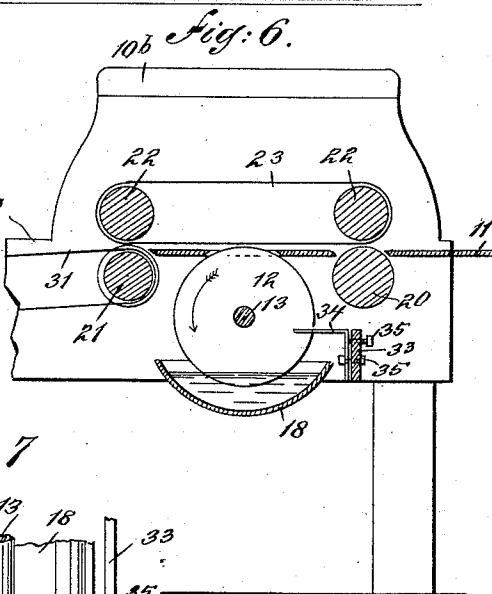
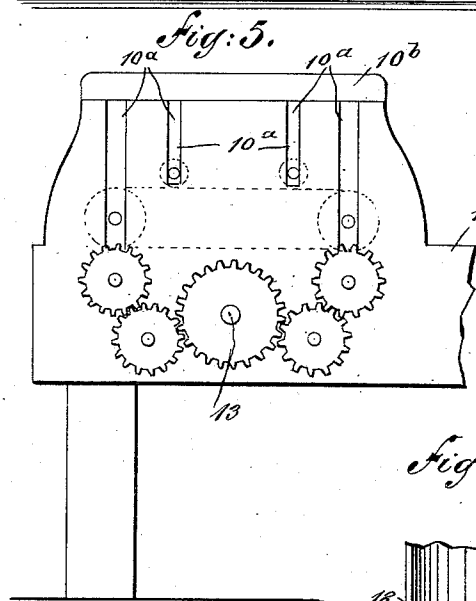
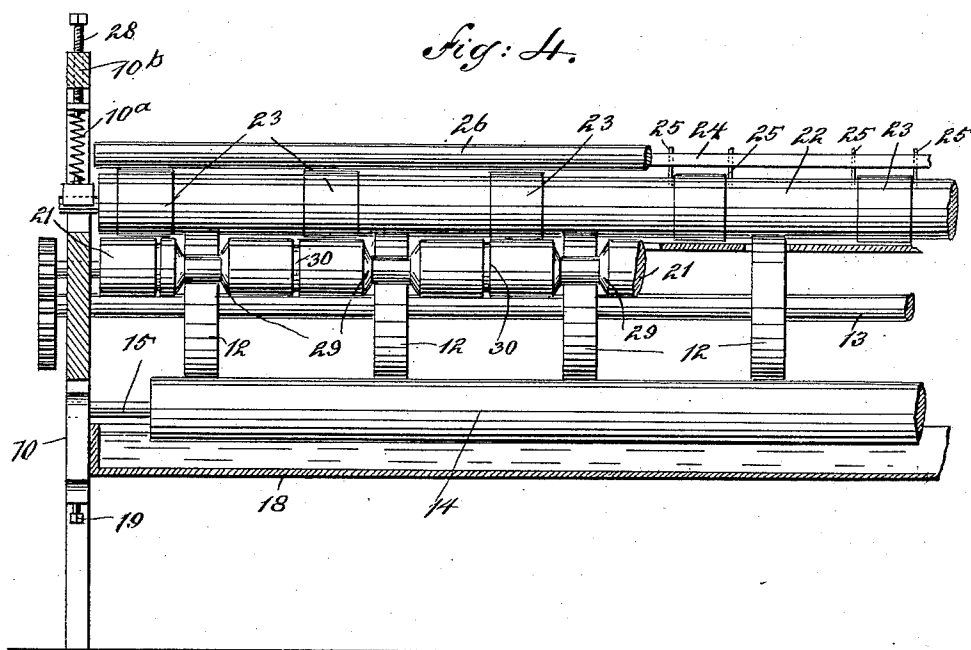
H. Mooney
BY Munn & Co

ATTORNEYS

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GUMMING MACHINE.

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WITNESSES:

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UNITED STATES PATENT OFFICE.

HUGH MOONEY, OF JERSEY CITY, NEW JERSEY.

GUMMING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 469,583, dated February 23, 1892.

Application filed December 8, 1891. Serial No. 414,369. (No model.)

To all whom it may concern:

Be it known that I, HUGH MOONEY, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and Improved Gumming-Machine, of which the following is a full, clear, and exact description.

My invention relates to improvements in that class of machines which are adapted to apply gum to flexible articles; and the object of my invention is to produce a simple machine of this class which is especially adapted for gumming labels or other articles in which the gum is applied in regular lines, and also to construct a machine so that it may be very easily adjusted and will work very rapidly.

To this end my invention consists in a gumming-machine, the construction of which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the machine embodying my invention. Fig. 2 is a vertical longitudinal section of the same on the line 2 2 of Fig. 1. Fig. 3 is a broken detail side elevation of the driving mechanism of the machine. Fig. 4 is a broken enlarged cross-section on the line 4 4 of Fig. 2. Fig. 5 is a broken side elevation of one end of the machine. Fig. 6 is an enlarged sectional view showing a modified means for applying the gum to the fabric, and Fig. 7 is a broken detail plan of the gum-wheel and gum-fount, as shown in Fig. 6.

The machine is provided with a substantial and elongated frame 10, which has a flat feed shelf or table at one end, and the top of the table extends well into the open frame of the machine and is provided with a series of slots through which project, slightly, the gum-wheels 12, and the wheels will consequently apply gum to any material which is passed over them. The gum-wheels 12 are carried by a shaft 13, which extends transversely through the machine near one end and is driven by a pulley 13^a. The gum-wheels 12 are preferably of some flexible material, such as rubber, or they may have a facing of such material, and they contact with a drum 14, which turns in the gum-fount and thus delivers gum to the wheels, the drum having end shafts 15, which

are mounted in suitable supports in the frame, and are driven by means of meshing gear-wheels 16 and 17, the gear-wheel 16 being secured to one of the shafts 15 and the gear-wheel 17 to the main driving-shaft 13, as shown in Fig. 3. The gum-fount 18 is open at the top and extends transversely across the frame beneath the drum 14, the fount being vertically adjusted by means of set-screws 19, as best shown in Figs. 2 and 4.

Extending transversely through the machine-frame in front and rear of the wheels 12 are drums or rollers 20 and 21, which are arranged so that their top surfaces shall be nearly flush with the top surfaces of the gumming-wheels, the forward roller 20 serving as a feed-roller and the rear roller 21 serving to carry the tapes which discharge the gummed material, as hereinafter described. A pair of shafts or rollers 22 are also arranged transversely in the front end of the machine so as to align vertically with the rollers 20 and 21, and these rollers 22 carry tension-tapes 23, which are adapted to press the material to be gummed firmly upon the wheels. A cross-bar 24 is mounted above the tapes 23 near the center of the same, and such cross-bar has depending pins 25, which extend downward on each side of each tape, and thus serve to guide the tapes and keep them in proper position in relation to the gum-wheels. Transverse tension-rollers 26 are also arranged above the tapes 23 so as to press upon them and give them the necessary tension, and these rollers 26, as well as the rollers 22, are provided with bearings which may move vertically in slots 10^a in the machine-frame, and the several rollers are adjusted by means of set-screws 27 28, which project downward through a cap 10^b on each side of the machine-frame and on the top thereof, and suitable springs are inserted between the bearings of the rollers and the adjusting set-screws. It will be understood that by removing either or both of the caps 10^b any or all of the rollers may be easily removed or new ones inserted. The roller 21 has recesses 29 opposite the gumming-wheels 12, as shown in Fig. 4, so as to provide the necessary room for the wheels, and the roller is also provided with narrow annular recesses 30, which are arranged between the recesses 29 and which serve to

carry the tapes or cords 31, which extend longitudinally through the rear portion of the machine and over a roller 32 at the rear end of the frame. These strips or cords 31 are adapted to receive the gummed labels or other matter which comes from the gumming-wheels, and by reference to Figs. 1 and 4 it will be seen that the cords do not align with the gumming-wheels, and consequently the gum on the labels will not touch the carrying tapes or cords.

In Fig. 6 and 7 I have shown a modified form of gumming attachment, by means of which the gum-roller 14 is dispensed with. In this case the gum-fount 18 is held higher up in the frame and the gum-wheels 12 dip directly into the fount, and in order that the wheels shall not deliver too much gum to the labels or other material to be gummed a cross-bar 33 is stretched across the frame adjacent to the fount and scrapers 34 are secured to the cross-bar, the scrapers being of an angular shape and being notched centrally, so that they will fit nicely upon the gum-wheels and scrape both the face and the sides of the same, as is best shown in Fig. 7. These scrapers may be adjusted both vertically and laterally by means of bolts 35, by means of which they are secured to the cross-bar.

In practice the rollers 20 and 21, as well as the rollers 22, are revolved by a gear connection with the main shaft 13, the connection being shown in Fig. 5, but not described in detail, as it will be understood that any ordinary means may be used for driving the rollers so that they may feed toward the rear end of the machine.

The operation of the machine is as follows: The labels or other material to be gummed are fed into the machine upon the table 11, and they will be carried rearward by the roller 20, the rollers 22, and tapes 23, and as they pass over the gum-wheels 12 the latter will apply the gum to them in straight lines, and when the labels pass the rollers 21 and 22 they will be delivered upon the carrying-tapes 31, and from thence will pass to the rear end of the machine, where they may be caught by any suitable device.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A gumming-machine comprising a slotted feed-table, a gum-fount suspended beneath the same, revoluble gum-wheels adapted to deliver gum from the fount through slots in the table, feeding mechanism adapted to carry material over the gum-wheels, and movable carrying-tapes arranged in the rear of the gum-wheels, substantially as shown and described.

2. A gumming-machine comprising a slotted feed-table, revoluble gum-wheels adapted to receive gum from a fount and to revolve through slots in the table, movable tapes arranged above the table and adjacent to the gum-wheels, and carrying-tapes traveling rearward from the gum-wheels, substantially as shown and described.

3. A gumming-machine comprising a slotted feed-table, revoluble gum-wheels held to turn in slots in the table, a gum-roller held to turn in the gum-fount and to contact with the gum-wheels, feeding mechanism for carrying material over the gum-wheels, and rearwardly-traveling carrying-tapes mounted in the rear of the feed-table, substantially as shown and described.

4. In a machine of the character described, the combination, with the slotted table and the gum-wheels held to turn in the table-slots, of tapes mounted on rollers and arranged to travel between the gum-wheels, and adjustable tension-rollers held to press upon the tapes, substantially as shown and described.

5. The combination, with the slotted feed-table and the gum-wheels held to turn in the slots, of vertically-adjustable rollers mounted in the front and rear of the gum-wheels, tapes carried by the rollers, vertically-adjustable tension-rollers held to press upon the tapes, and guides for the tapes, substantially as shown and described.

HUGH MOONEY.

Witnesses:

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JOHN FUCHS.