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V. J. VAN HORN

TAPE MOISTENING MACHINE

Filed Feb. 23, 1922

Fig. 1.

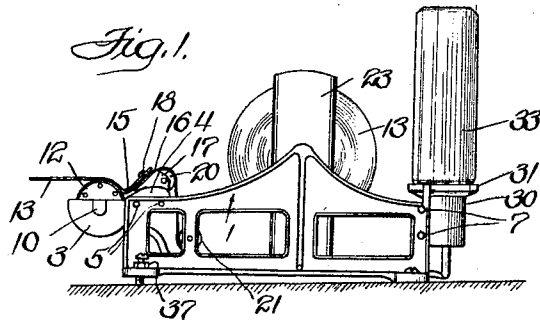


Fig. 2.

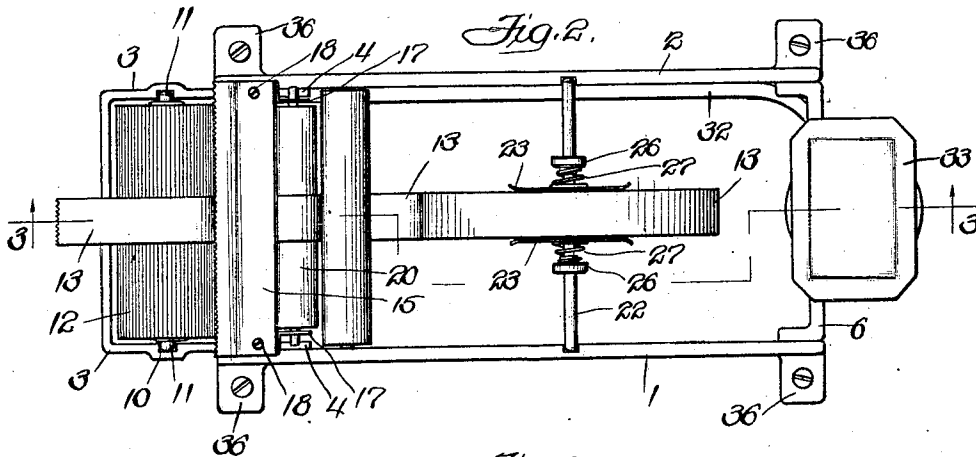
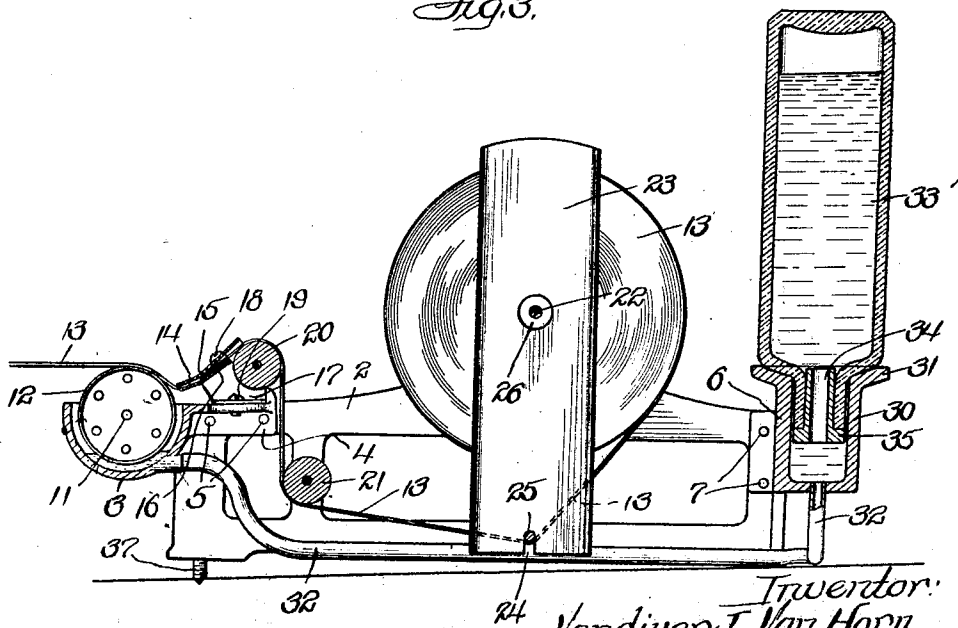


Fig. 3.



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UNITED STATES PATENT OFFICE.

VANDIVER J. VAN HORN, OF CHICAGO, ILLINOIS.

TAPE-MOISTENING MACHINE.

Application filed February 23, 1922. Serial No. 538,458.

To all whom it may concern:

Be it known that I, VANDIVER J. VAN HORN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Tape-Moistening Machines, of which the following is a specification.

This invention relates to tape moistening machines.

It will be explained as applied to a machine for holding and moistening gummed tape such as ordinarily used in sealing packages, etc.

One of the objects of this invention is to provide an improved tape moistening machine.

Another object is to provide a tape moistening machine having large capacity for holding water.

Another object is to provide a tape moistening machine having a storing reservoir from which water is automatically fed to the moistening-roller hopper as required.

Another object is to provide a tape moistening machine which is simple, reliable, efficient and inexpensive.

An embodiment of the invention is illustrated in the accompanying drawing, wherein—

Fig. 1 is a side elevation of the tape moistening machine.

Fig. 2 is an enlarged top plan thereof, and

Fig. 3 is a section on the line 3—3 of Fig. 2.

The moistening machine has a supporting frame having two substantially parallel openwork side members 1 and 2. These side members may be made of suitable material such as cast iron. The front or tape moistening end of the machine frame consists of a trough shaped hopper 3 provided with rearwardly extending brackets 4 at each end. Brackets 4 are rigidly secured to side members 1 and 2 by suitable means, such as screws 5. The rear of the frame is completed by a plate 6 which is secured to the side members by suitable means such as screws 7.

Hopper 3 has its end walls formed to provide a pair of open topped trunnion bearings 10. Bearings 10 receive the trunnions 11 of a corrugated moistening roller 12.

Koller 12 carries water from the hopper and applies the same to the gummed side of a tape 13 which is passed thereover in the usual manner.

Tape 13 is fed to the moistening roller through a curved tapering guide passage 14. Passage 14 is provided by a top plate 15 and a bottom plate 16. Plate 16 is offset downwardly, the offset gradually decreasing toward the front, to diminish the separation from plate 15 and form the taper of passage 14. The front edge of plate 15 is serrated to facilitate cutting the tape.

Plates 15 and 16 are secured to brackets 17 by screws 18. Brackets 17 are secured to the hopper by screws 19.

Brackets 17 journal a tape guiding roller 20 between them. A lower guiding roller 21 is journaled to side members 1 and 2.

Side members 1 and 2 are each provided with an upstanding leg which have open topped trunnion bearings for a removable tape-roll supporting shaft 22. The shaft may support one or more rolls of gummed tape. Shaft 22 may slidably carry a pair of tape-roll guide plates 23 for each roll of tape thereon. Each plate 23 has a slot 24 in its lower end to receive a rod 25 which extends between and is secured to the side members. An adjusting nut 26 and a spring 27 encircling shaft 22 back of each plate 23 serve to clamp these plates against the sides of the roll or rolls of tape and control the tape tension. The tape passes from the roll under rod 25 and roller 21, over roller 20 and through passage 14 to moistening roller 12.

Plate 6 at the rear of the frame has a receptacle 30 which may be cast integrally therewith. Receptacle 30 is in the form of a substantially cylindrical cup with a dished rim 31 around its upper edge. The floor of receptacle 30 has a hub with an opening therein communicating with a pipe 32 which interconnects the receptacle and hopper 3. Receptacle 30 is adapted to support a water storage tank 33 which may be in the form of a straight necked glass bottle. The neck of the bottle fits within receptacle 30 and the bottle is supported by its shoulder resting on rim 31. A perforated stopper 34 of wood or other suitable material partly closes the neck of the bottle. The outer end of stopper 34 has an annular flange 35 which

prevents the stopper from being inserted too far into the bottle and serves as a cushion between the metallic bottom of the receptacle and the glass neck of the bottle.

5 The bottle is filled with water and inverted into receptacle 30. The water flows into hopper 3 through pipe 32, replenishing the hopper as the water is withdrawn therefrom and applied to the tape by roller 12.
10 The frame of the machine may be provided with supporting feet 36 which may be perforated or slotted for holding screws. Some or all of the screws may be made adjustable, such as screws 37, to vary the level
15 of the frame and control the flow of water between the tank and the moisture supplying hopper.

Having described my invention what I

claim as new and desire to secure by Letters Patent, is:—

20 A tape moistening machine comprising a frame; a moisture-supplying hopper at one end of the frame; a receptacle for an inverted bottle mounted on the other end of the frame; a holder for a roll of gummed
25 tape between the hopper and bottle; a pipe connecting the bottle receptacle and the hopper, extending below the holder; a distributing roller in the hopper; and means
30 for adjusting the elevation of one end of the frame to change the height of the water level in the hopper.

In testimony whereof I hereunto subscribe my name.

VANDIVER J. VAN HORN.