M. HIMOFF.

STRIP MOISTENING MACHINE.

APPLICATION FILED JUNE 10, 1911.

1,016,011.

Patented Jan. 30, 1912.

3 SHEETS—SHEET 1.

Fig. 1.

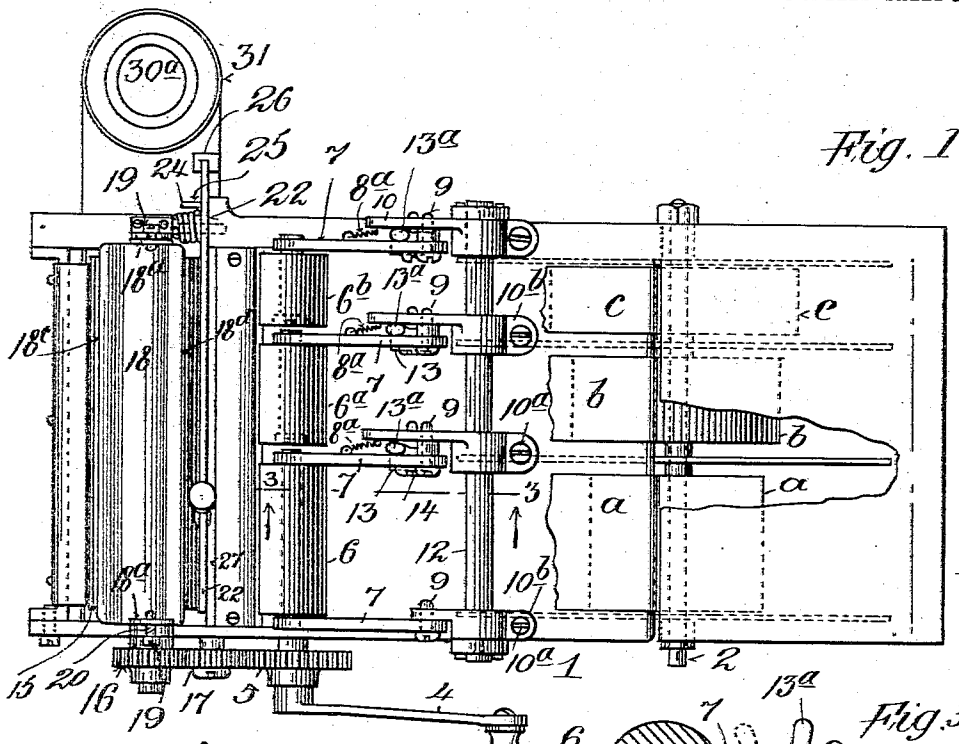

Fig. 3.

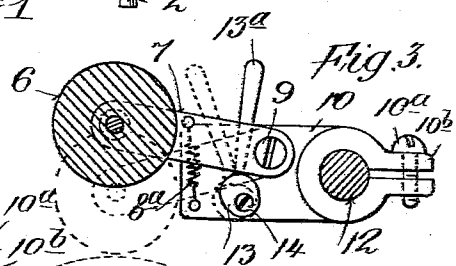

Fig. 2.

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3 SHEETS—SHEET 2.

Fig. 4

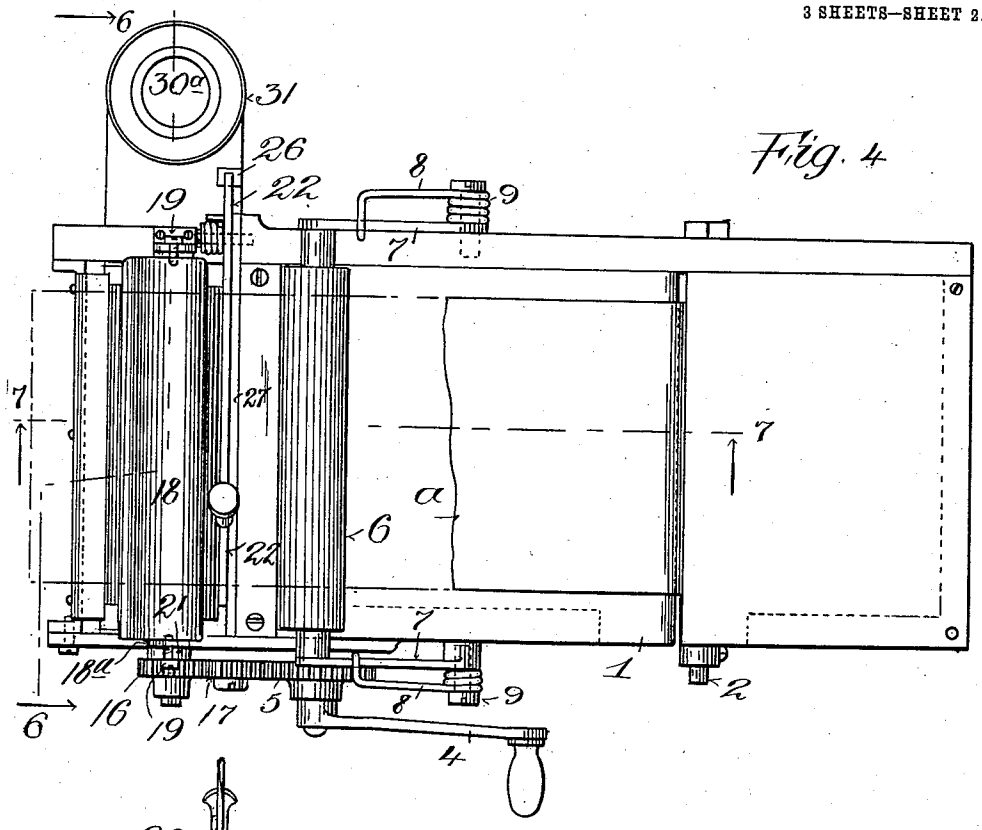
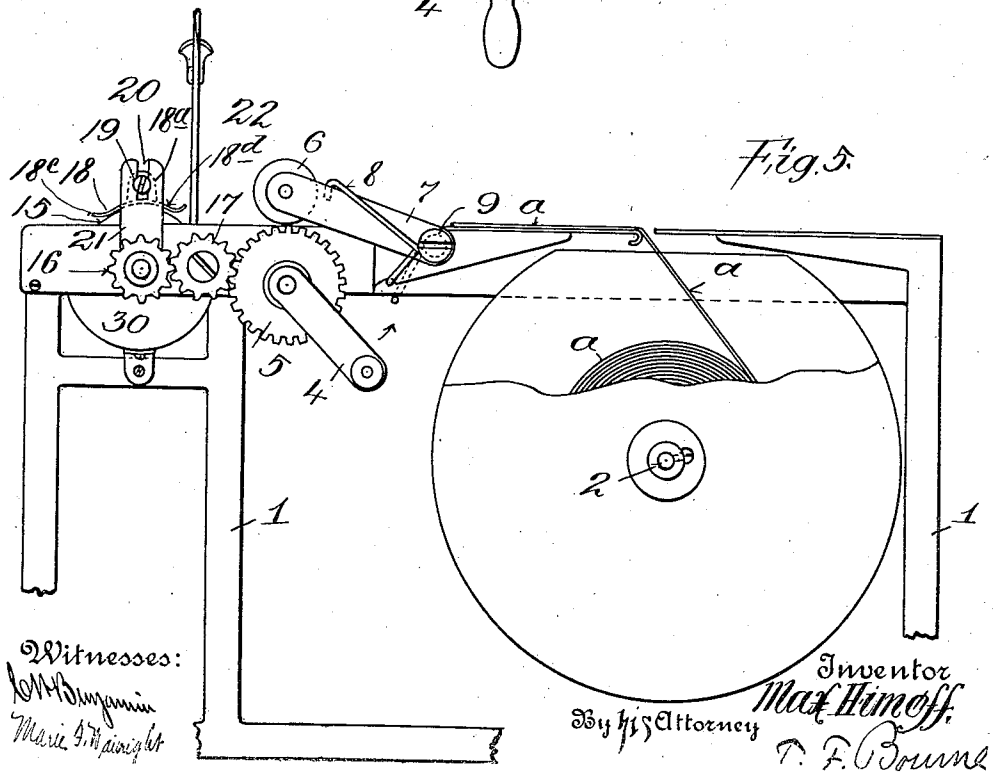


Fig. 5.



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3 SHEETS—SHEET 3.

Fig. 6

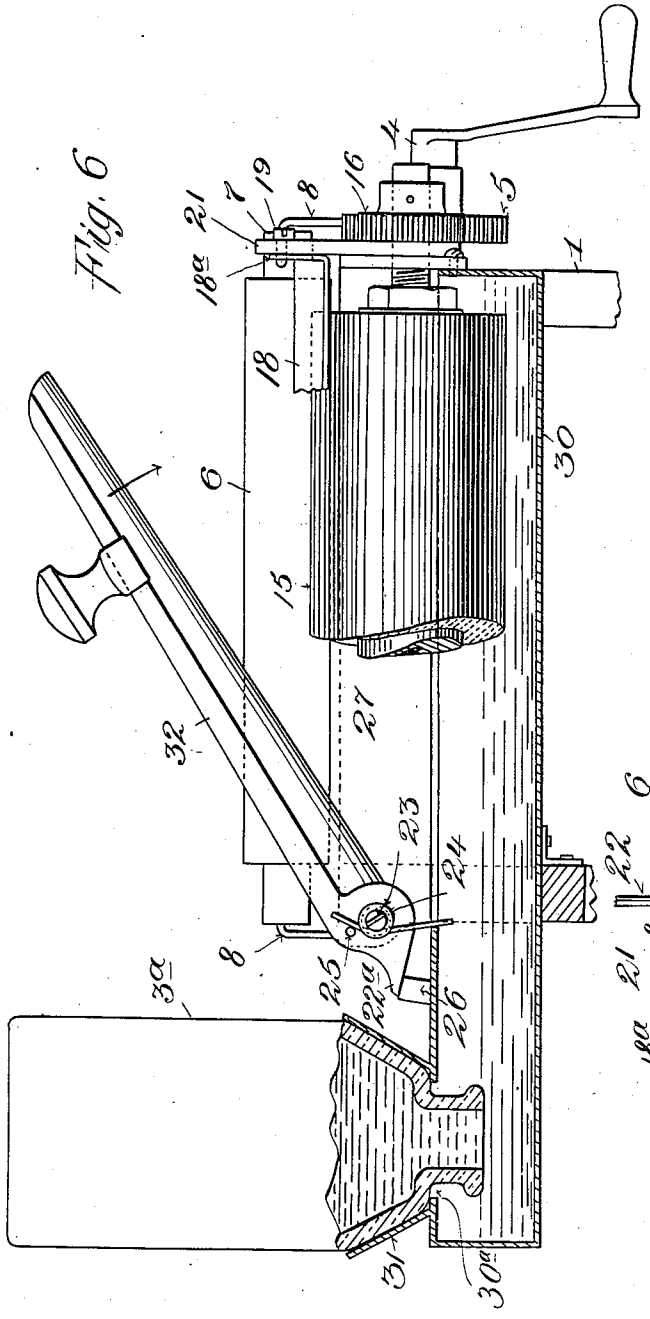
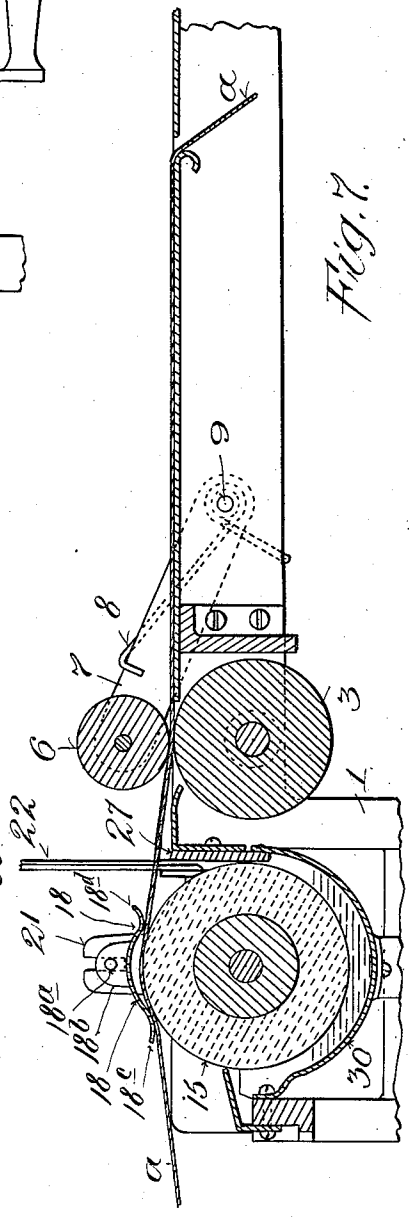


Fig. 7.



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UNITED STATES PATENT OFFICE.

MAX HIMOFF, OF NEW YORK, N. Y.

STRIP-MOISTENING MACHINE.

1,016,011. Specification of Letters Patent. Patented Jan. 30, 1912.

Application filed June 10, 1911. Serial No. 632,347.

To all whom it may concern:

Be it known that I, MAX HIMOFF, a citizen of the United States, and resident of New York city, borough of Manhattan, in the county of New York and State of New York, have invented certain new and useful Improvements in Strip-Moistening Machines, of which the following is a specification.

The object of this invention is to provide an improved machine for moistening gummed strips or sheets of paper, postage stamps, and the like, continuously as drawn from the machine, one of the features being that a plurality of reels of strips of different or similar widths may be mounted in the machine to enable any of such strips at will to be moistened as drawn through the machine; another feature comprising means for cutting such strips to the desired length before the same are moistened, and another feature being improved means for maintaining the desired level of the water at the moistening roll.

The invention comprises novel details of improvement and combinations of parts that will be more fully hereinafter set forth and then pointed out in the claims.

Reference is to be had to the accompanying drawings forming part hereof, wherein,

Figure 1 is a partly broken plan view of a moistening machine embodying this invention, illustrating the means for moistening a plurality of gummed strips; Fig. 2 is a side view thereof; Fig. 3 is a section on the line 3, 3, in Fig. 1; Fig. 4 is a view similar to Fig. 1, illustrating the machine adapted for moistening a single gummed strip; Fig. 5 is a side view thereof; Fig. 6 is an enlarged section on the line 6, 6, in Fig. 4, and Fig. 7 is an enlarged section on the line 7, 7, in Fig. 4.

Similar numerals of reference indicate corresponding parts in the several views.

A suitable frame 1 is provided with a shaft or rod 2 upon which one or more reels of gummed paper *a*, *b*, *c*, are supported, with the gummed surfaces disposed inwardly. A feeding roller 3 is mounted to rotate in frame 1 and is shown provided with a crank handle 4 and with a gear 5. Above roller 3 are one or more pressing rollers 6, 6^a, 6^b, movably mounted to press the gummed paper against feeding roller 3. In Figs. 1, 2, 3 three rollers 6, 6^a, 6^b are shown adapted to coact with the varying widths of strips *a*, *b*, *c*, respectively, while in Figs. 4 to 7 a single roller 6 of the width of the strip *a* is shown. Said pressing rollers are adapted to have lateral movement to permit feeding of the desired strip between the same and feeding roller 3. To this end arms 7 are connected with the corresponding roller 6, 6^a, 6^b, and springs 8 bearing upon said arms and against a suitable stop serve to maintain pressure upon arm 7 to press the gummed paper by means of the corresponding pressing roller against feeding roller 3. In Figs. 1 to 3 the arms 7 are shown pivotally carried, as at 9, upon brackets 10 adjustably clamped upon a rod 12 secured upon frame 1, while in Figs. 4 to 7 the arms 7 are shown pivotally supported at 9 upon frame 1 without the intervention of the adjustable brackets 10, the screws 9 being shown attached to frame 1. In Figs. 1 to 3 the springs 8^a connect the arms 7 with brackets 10. The rollers 6, 6^a, 6^b in said figures are independently adjustable toward and from roll 3, for which purpose cams or eccentrics 13 are shown pivoted at 14 to engage the arms 7 to hold the arms raised or lower them as required. The cams or eccentrics 13 are shown provided with handles 13^a for operating them. When one of the gummed strips is to be drawn out the roller 6, 6^a, or 6^b is lowered, to press such strip upon feeding roller 3, by properly operating the cam 13, and the other cams are operated to maintain the other of such rollers elevated. By this means one or more of the strips may be drawn forward at the same time, an advantage being that either of the strips may be drawn forward as desired by merely lowering its corresponding pressing roller upon such strip, while the other strips remain in position to be pulled when desired. The brackets 10 are shown adjustable along rod 12 by means of the screws 10^a coacting with the clamping jaws 10^b of brackets 10, whereby strips of varying widths may be applied in the machine as desired, and the roller 6, 6^a, 6^b may be replaced to accord with the width of said strips. In either case the strip or strips passing from the feeding rollers pass over the moistening roller 15, which is rotatively mounted in frame 1 at a suitable distance from the feeding rollers. Said moistening roller is shown provided with a gear 16 meshing with an idle gear 17 that also meshes with the gear 5, whereby when

feeding roller 3 is rotated to feed the strip or strips of gummed material the moistening roller 15 will be simultaneously rotated in the same direction. To keep the gummed strip in contact with the moistening roller 5 as such strip feeds over the same, a pressing plate 18 is provided across the upper portion of moistening roller 15, whereby the gummed surface of the strip is kept in contact with the wet, dampened or moistened roll. Said pressing plate 18 is shown adjustably mounted to accommodate strips of varying thicknesses, for which purpose said plate is shown provided with ears 18^a having screws 19 entering slots 20 in brackets 21 carried by frame 1. The pressing plate 18 is shown suitably curved at 18^b over moistening roller 15 and its longitudinal edges bend upwardly at 18^c, 18^d for free passage of the gummed strip.

Between the feeding rollers 3, 6 and the moistening roller 15 is a cutting off knife 22, which is shown pivoted at one end to frame 1 at 23, a spring 24 acting against a suitable part of frame 1 and against the stop 25 on cutter 22 serving normally to hold the knife or cutter raised, the end 22^a of the cutter abutting against a stop 26 (see Fig. 6). The cutting edge of cutter or knife 22 is thus normally above the portion of the gummed strip between the feeding rollers and the moistening roller. Below said strip, to coact with said cutter, is the stationary cutter 27 suitably supported on frame 1. The advantage of this arrangement is that the cutters act to sever the gummed strip before the same has been moistened and at a point beyond the feeding rollers toward the moistening roller so that the remainder of such strip will be in position between the feeding rollers after being cut ready to be fed further. The cut off portion of the strip will be pulled over the moistening roller.

30 indicates a tank or trough for water supported by frame 1 and receiving the moistening roller 15 which dips into the water in said tank (see Fig. 7). To maintain a constant supply of water and proper water level in the tank at all times a suitable seat 31, shown in funnel-like form above an opening 30^a in the top of the tank, is adapted to support a bottle 32 containing water, the arrangement being such that when the bottle mouth is sealed by the water in tank or trough 30 the water level therein will be maintained, and yet as the water is used or evaporates the supply for the moistening roll will be kept up from the water in the bottle; when the supply is exhausted the bottle will be refilled and replaced. A simple and convenient means is thus provided for moistening roller 15 without unduly wetting the same beyond the desired depth.

The means described will be found advantageous for moistening gummed strips or sheets of paper or the like for fastening around bundles or as printed labels, particularly where such strips of varying lengths and widths are required, a particular advantage being that gum on the strips will be moistened only as the strips are to be used, and as the cutters are so located as to cut the strips while they are dry a further advantage is obtained of overcoming the danger of moistened strips bearing irregularly when cut or drawn off against a cutting edge, as has been the case in some classes of machines for delivering moistened gummed paper strips.

Changes may be made in the details of construction set forth, within the scope of the appended claims, without departing from the spirit of the invention.

Having now described my invention what I claim is:—

1. The combination of a frame, a feeding roller, a plurality of pressing rollers coacting therewith, means for supporting said pressing rollers to separately coact with said feeding roller, means to at will hold any of the pressing rollers out of coaction with the feeding roller, means to rotate the feeding roller to feed the strip, means to moisten the strips fed between the rollers, and means to sever such strips in desired lengths.

2. The combination of a frame, a feeding roller, a plurality of pressing rollers coacting therewith, means for supporting said pressing rollers to separately coact with said feeding roller, eccentrics coacting with the pressing rollers to at will hold them out of contact with the feeding roller, means to moisten the strips fed between the rollers, and means to sever said strips in desired lengths.

3. The combination of a frame, a feeding roller, a plurality of pressing rollers, brackets adjustably carried on the frame, arms carried by the brackets for supporting the corresponding pressing rollers, eccentrics carried by the brackets and coacting with said arms to at will hold the pressing rollers out of contact with the feeding roller, means to moisten strips fed between the rollers, and means to sever said strips into desired lengths.

4. The combination of a frame, a feeding roller, a pressing roller coacting therewith, means to rotate the feeding roller, said feeding roller having a gear, a moistening roller having a gear, and an idle gear meshing with said gears, whereby the feeding roller and the moistening roller rotate in the same direction and a pressing plate over the moistening roller to receive therebetween a strip fed from the feeding roller.

5. The combination of a frame, a feeding roller, a pressing roller coacting therewith,

means to rotate the feeding roller said feeding roller having a gear, a moistening roller having a gear, an idle gear meshing with said gears, whereby the feeding roller and the moistening roller rotate in the same direction, and a pressing plate over the moistening roller to receive therebetween a strip fed from the feeding roller, and a cutting device located between the feeding roller and the moistening roller to cut a strip therebetween.

6. The combination of a frame provided with means for feeding a gummed strip, a moistening roller spaced from said feeding means, a pressing plate parallel with and partly encircling the moistening roller, said plate having ears, the frame having brackets adjacent said ears, and screw and slot connections between said ears and brackets for holding said pressing plate in adjusted positions relatively to the moistening roller.

Signed at New York city, in the county of New York, and State of New York, this 9th day of June, A. D. 1911.

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