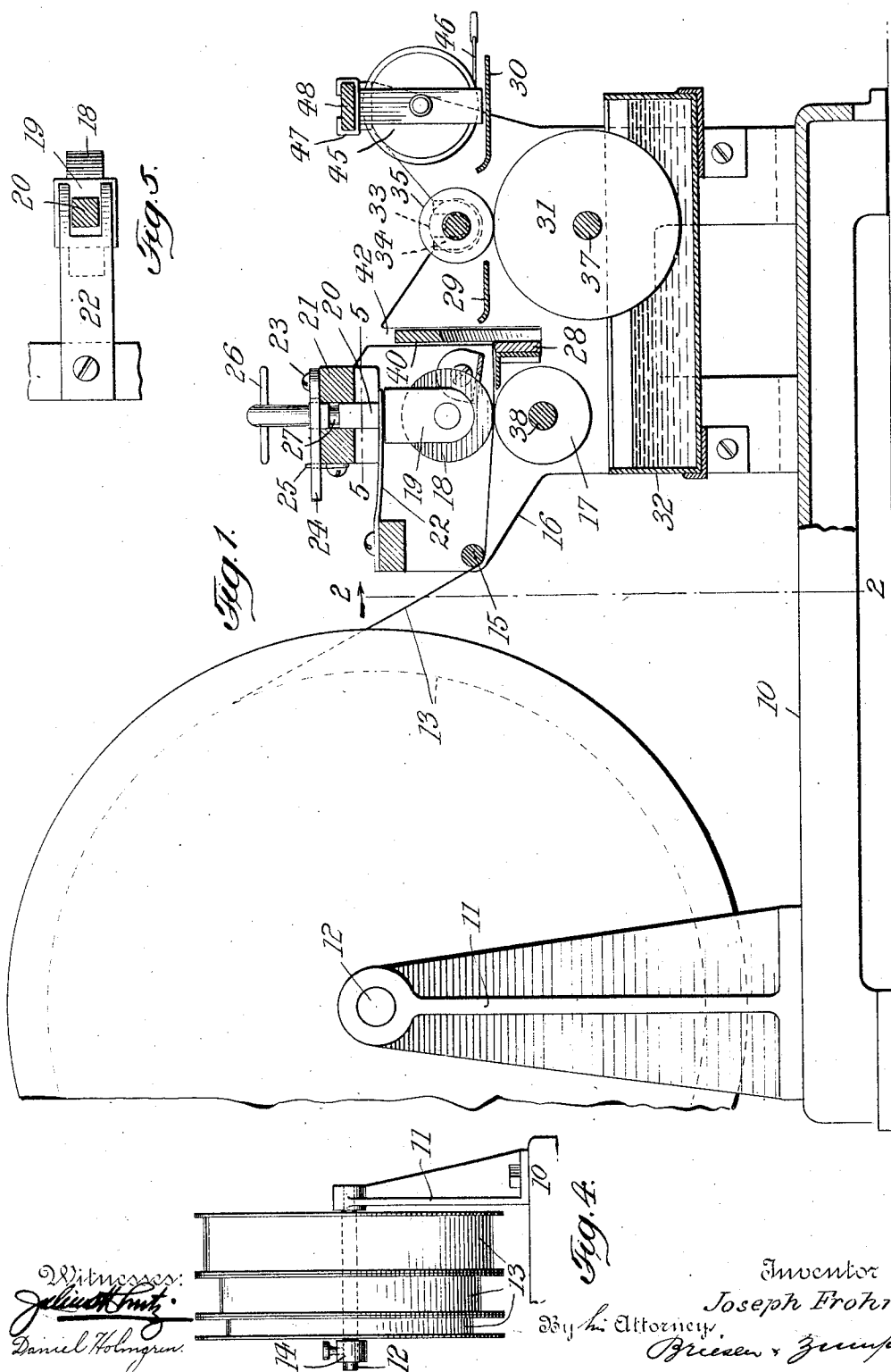


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TAPE MOISTENING AND CUTTING MACHINE.
APPLICATION FILED APR. 3, 1912.

1,058,957.

Patented Apr. 15, 1913.

2 SHEETS—SHEET 1.

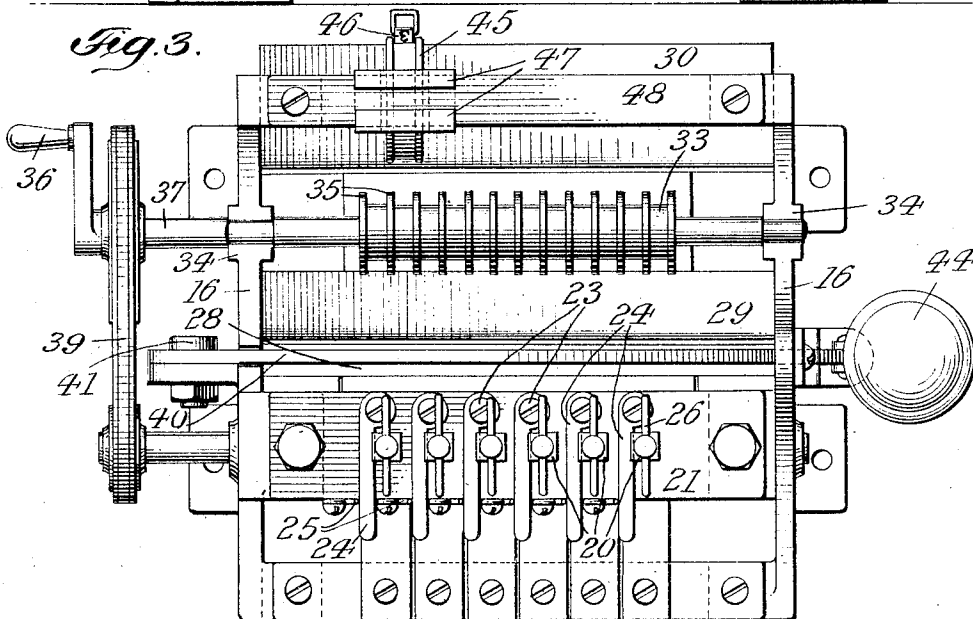
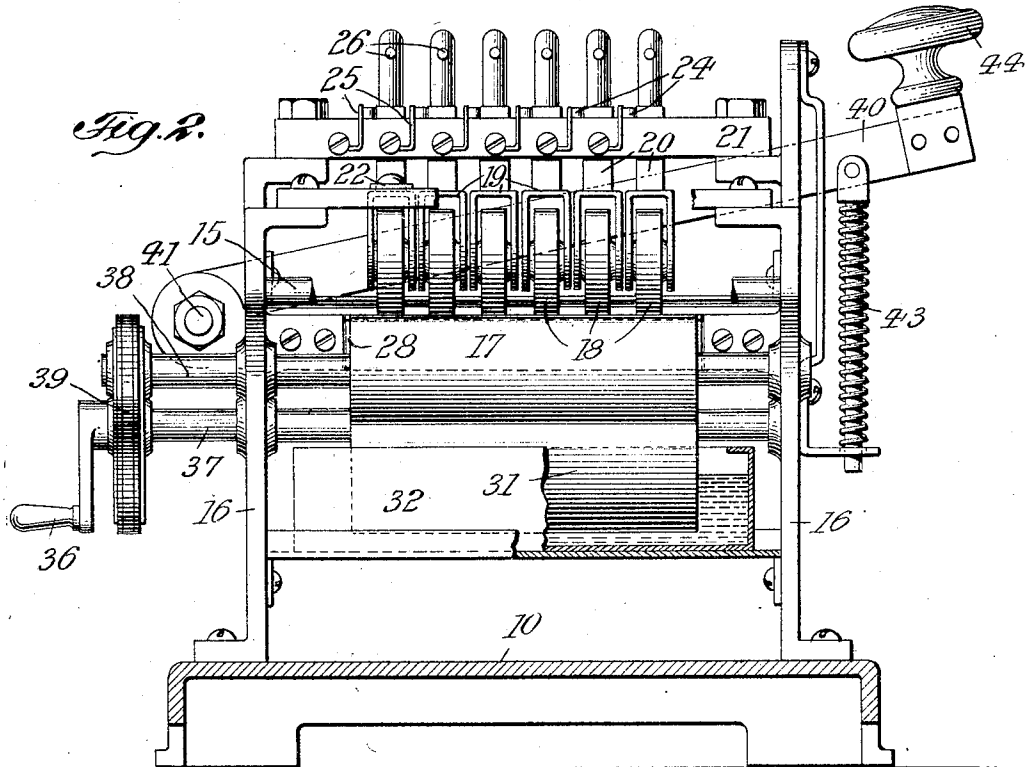


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Witnesses:
[Signature]
 Daniel Holmgren

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UNITED STATES PATENT OFFICE.

JOSEPH FROHN, OF NEW YORK, N. Y.

TAPE MOISTENING AND CUTTING MACHINE.

1,058,957.

Specification of Letters Patent.

Patented Apr. 15, 1913.

Application filed April 3, 1912. Serial No. 688,290.

To all whom it may concern:

Be it known that I, JOSEPH FROHN, a citizen of Germany, residing at New York city, county and State of New York, have invented a new and Improved Tape Moistening and Cutting Machine, of which the following is a specification.

This invention relates to a machine of novel construction for moistening paper and other tapes, which have previously been coated on one face with an adhesive and for cutting up the tapes into suitable lengths. The tapes so cut up are designed for closing boxes, packages and similar articles.

By my invention, any sticking of the unsevered portion of the coated tape to the moistening roller is obviated, while furthermore the tape may be so accurately subdivided that waste is avoided.

In the accompanying drawing: Figure 1 is a side view of a machine embodying my invention; Fig. 2 a vertical section on line 2—2, Fig. 1; Fig. 3 a plan of the tape moistening and cutting mechanism proper; Fig. 4 a detail of the reels and reel support, and Fig. 5 a horizontal section through one of the pressure roller spindles and adjoining parts on line 5—5, Fig. 1.

Upon a base plate 10 is mounted a standard 11 in which is supported a fixed horizontal axle 12. On this axle are free to turn a plurality of reels or tape rolls 13 of preferably different widths and held in position by a suitable stop 14, three of said rolls being shown in the drawing. Each tape 13 passes beneath a guide rod 15 supported by a frame 16 which is likewise mounted on base 10. Within this frame there is hung a feed drum 17 above which are arranged a plurality of vertically movable friction rollers 18. These rollers are comparatively narrow so as to adapt the machine to tapes of various widths without necessitating a change of said rollers, that is to say, while a narrow tape will be engaged by but a single roller, a wider tape will be engaged by two or more rollers, so that in this way the tapes which pass between rollers 18 and feed drum 17 are firmly held to the latter. Each roller 18 is hung in the forked lower end 19 of a squared plunger 20 which is vertically movable within a corresponding aperture of a top rail 21 constituting part of frame 16. Plunger 20 is engaged by a bifurcated spring 22 bearing upon fork 19 and adapted to force its roller

18 against drum 17. In order to maintain rollers 18 in their raised or inactive position, there are pivoted to rail 21 at 23 a plurality of latches 24. Each of these latches is engaged by a spring 25 which, upon the raising of the plunger by a handle 26 is adapted to swing the latch into a recess 27 of said plunger so as to hold the same in its raised position against the action of spring 22. It will be seen that upon a rotation of drum 17 only that particular tape will be fed forward, the roller or rollers 18 of which are lowered, while all the other tapes remain at rest. Thus by properly manipulating latches 24 and thereby permitting springs 22 to lower the corresponding rollers 18, the tapes selected may be automatically advanced as will be readily understood.

Beyond feed drum 17, tape 13 passes over the fixed blade 28 of a cutter hereinafter more fully described and thence under a pair of spaced guides 29, 30. Between these guides, there is hung in frame 16 a moistening roller 31 dipping into a water trough 32 and adapted to contact with the lower coated face of the tape as it passes from guide 29 to guide 30. In order to hold the tape against roller 31, there is arranged above the latter, a vertically movable pressure roller 33 hung in a slotted bearing 34 and provided with a plurality of circular pressure ribs 35.

The machine is operated preferably by a crank handle 36 fast on the shaft 37 of roller 31, said shaft being operatively connected to the shaft 38 of feed drum 17 by a chain drive 39 in such a manner that roller 31 and drum 17 turn with a like surface speed. When a tape section of the desired length has been unreeled so as to extend in front of blade 28, it is severed by means of a movable knife blade 40 which is fulcrumed to blade 28 at 41 and is guided in vertical slots 42 of frame 16. Blade 40 is normally maintained in its raised position by a spring 43 and may be manually lowered for cutting purposes by depressing a knob 44. After the length of tape has been cut off, it is drawn forward, so that the section thereof which had remained between the cutter and roller 31 will also be drawn over the latter, thus causing the entire length of the severed tape section to be properly moistened.

Means are provided for readily measuring off different lengths of tape to be cut. These means consist of a spring barrel 45 contain-

ing a measuring band 46. Barrel 45 is mounted in a slide 47 horizontally movable along a fixed transverse rail 48 of frame 16, so that in this way the band may be vertically aligned with any tape selected. In operation, handle 36 is turned until the end of tape 13 coincides with the starting mark of band 46 and then the tape and band are drawn forward together until the desired length of the tape is unreeled, after which blade 40 is depressed. Of course the band 46 must be so graduated as to allow for the distance between the cutter and the forward end of guide 30.

It will be seen that with the construction described, tapes of various widths may be quickly and effectively fed forward, moistened and severed without requiring a corresponding adjustment of the machine. So also by arranging the cutter back of the moistening roller, no portion of the tape or tapes will be in contact with the latter when the machine is not used. In this way any sticking of the tape to the moistening roller will be prevented, so that the proper operativeness of the machine is at all times assured.

I claim:

1. A device of the character described, comprising a feed drum, an apertured rail 30 above the same, a plurality of notched plungers vertically reciprocable in said rail, rollers journaled to the plungers, springs engaging the plungers and adapted to lower said rollers against the feed drum, and 35 latches pivoted to the rail and adapted to engage the plunger-notches.

2. A tape moistening and cutting machine, comprising a feed drum adapted to be engaged by a plurality of tapes coated 40 on one side, means for pressing a selected tape to said drum so as to be taken along thereby, means for moistening the coated side of said selected tape, transversely slidable measuring means arranged in front of 45 said moistening means and adapted to be brought into vertical alinement with the selected tape, and tape cutting means interposed between the drum and moistening means.

JOSEPH FROHN.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."