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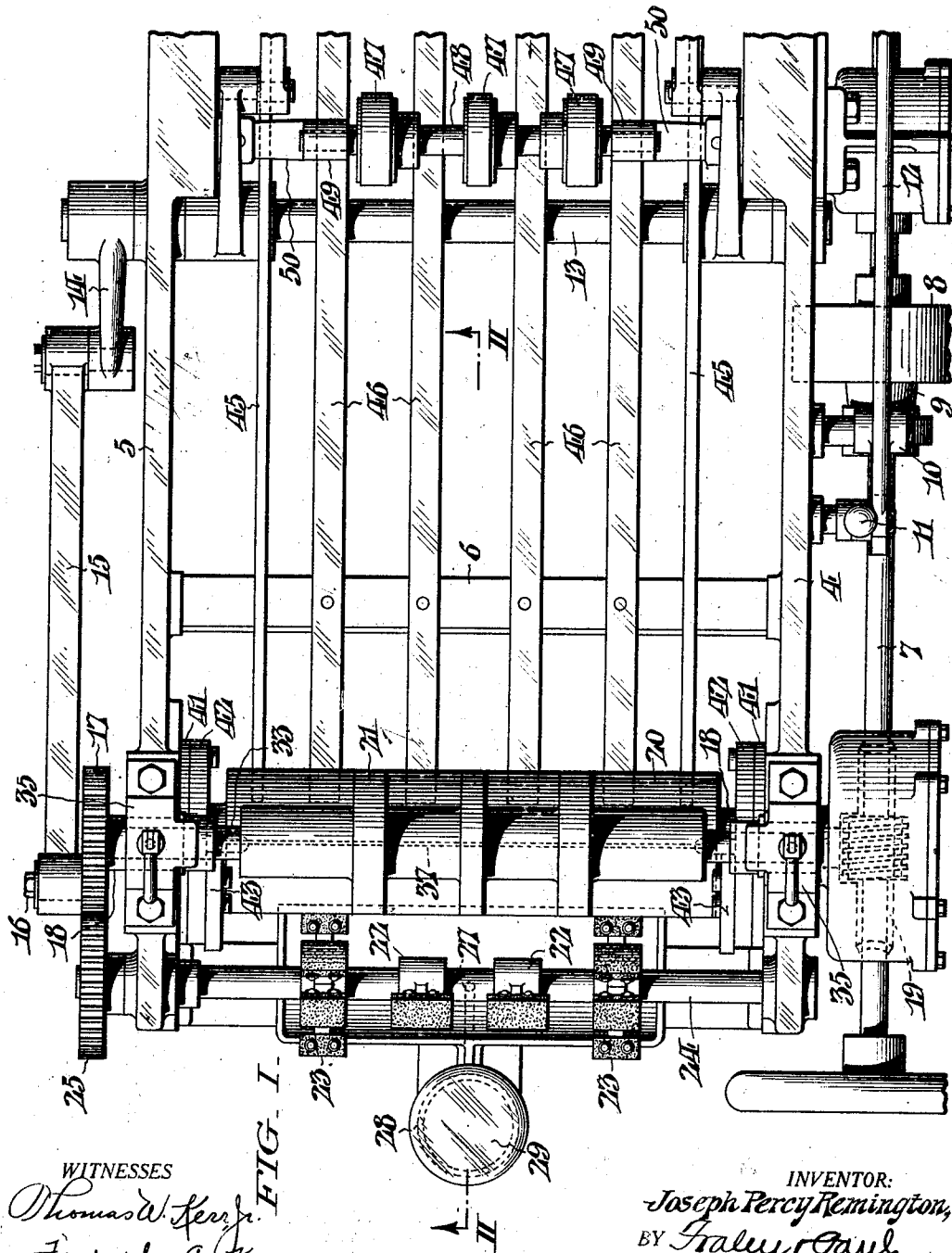
J. P. REMINGTON

1,768,488

ADHESIVE APPLYING MECHANISM FOR WRAPPING MACHINES

Original Filed Nov. 1, 1918

2 Sheets-Sheet 1



WITNESSES
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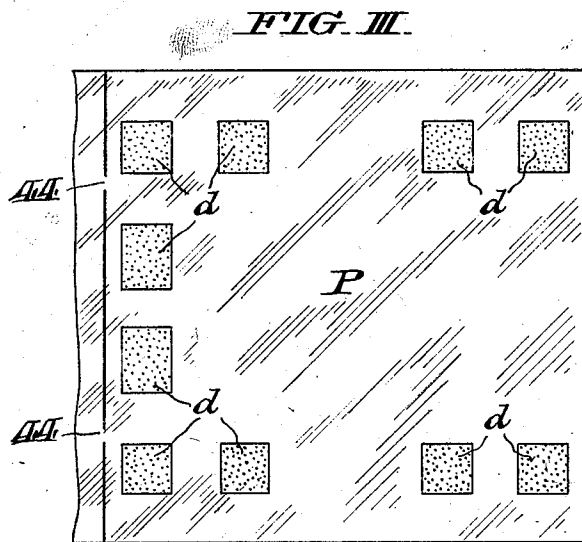
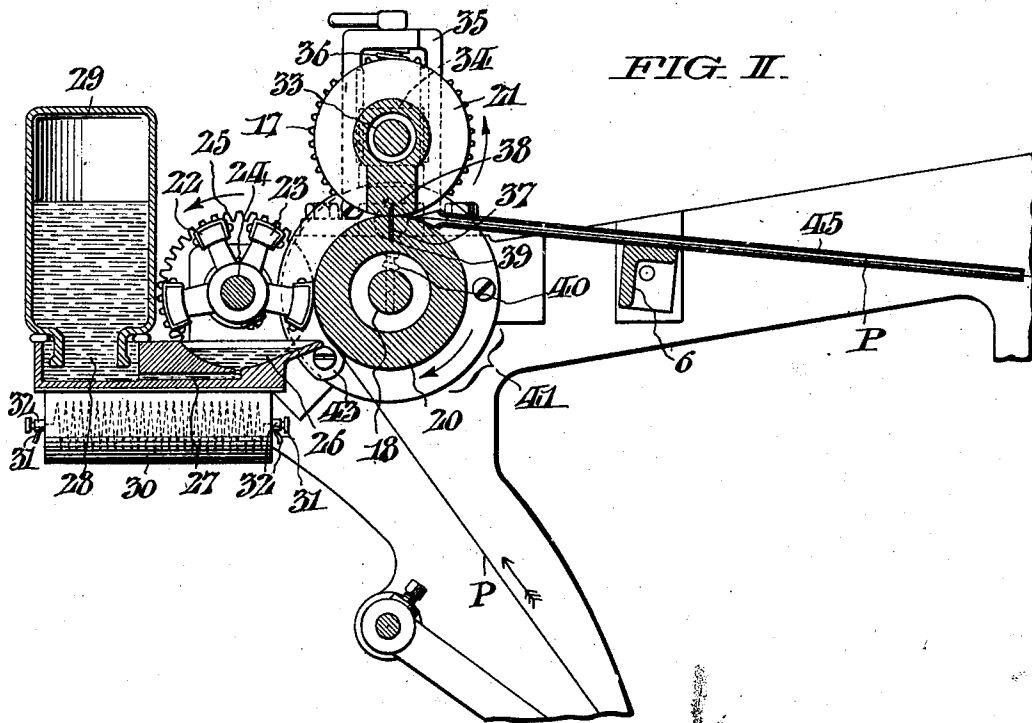
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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ADHESIVE-APPLYING MECHANISM FOR WRAPPING MACHINES

Original application filed November 1, 1918, Serial No. 260,629, now Patent No. 1,554,369, dated September 22, 1925. Divided and this application filed September 14, 1925. Serial No. 56,259.

This invention relates to machines for wrapping articles such as bread loaves, or the like, in an envelope preferably of wax paper, so as to be substantially hermetically sealed against infection and also to prolong the period of preservation.

Specifically, the present application is a division from my co-pending application, Serial #260,629, filed the first day of November, 1918, and renewed the 16th day of January, 1924; which matured into Patent No. 1,554,369, dated September 22, 1925; while the main object thereof is the provision of novel mechanism functional to apply adhesive to wrapping sheets at the regions corresponding to the subsequent folds into envelope formation.

Other objects and attendant advantages will be obvious from the following description of a typical embodiment of my invention, as illustrated by the accompanying drawings; while the appended claims serve to succinctly define its character and scope.

In the accompanying drawings:—

Fig. I is a part plan view of a wrapping machine at the region where my novel adhesive applying mechanism is conveniently embodied.

Fig. II is a longitudinal section through that portion of the preceding figure indicated by the arrows II—II thereon; and,

Fig. III is a plan view of a portion of the paper sheet from which successive wrappers are severed and showing, diagrammatically, convenient locations of applied adhesive.

While the form of my invention illustrated and described herein is believed, at this time, to be a preferred embodiment thereof; it is obvious that the same is susceptible of change and variation; accordingly the right is hereby reserved to effect such modifications as may be deemed desirable to meet different requirements.

In the following detailed explanation of my invention like reference numerals are applied to corresponding parts in all the views.

Proceeding now to a description of the embodiment of my invention illustrated the

numerals 4, 5 designate fragmentary side portions of a wrapping machine framework, such as forms the subject-matter of the hereinbefore referred to patent, said side portions being united by girts 6 in the well known manner. 7 indicates the main line-shaft by which motion is transmitted to various mechanisms incorporated in the machine, and it is provided with a power pulley 8 under control of a friction clutch 9, movable by an appropriate connection 10, fitted with a hand lever 11 and an auxiliary slide rod 12 arranged for movement from the other end of the wrapping machine. A rock-shaft 13, oscillated by an arm 14, is connected by an interposed link 15 to a crank pin 16 carried by a spur wheel couple 17, on a shaft 18, which is driven by means of a worm gear 19 from the line shaft 7.

The paper feeding and severing mechanism is driven by the shaft 18, just referred to, which shaft carries the main feed roller 20. This roller 20 co-operates with a companion roller 21, in drawing paper "P", from a suitable source of supply, and advancing the same to the printing and adhesive applying mechanism, now to be described. The main feed roller 20 aforesaid, also serves as a platen for a printing device by which daubs of adhesive "d"—Fig. III—are applied to the paper "P", at the proper intervals, consistent with the location of the folds in the final package. This printing device includes a series of padded arms of which those indicated at 22, 22 have single printing faces; whilst those marked 23, 23 have multiple faces, so that the adhesive printing is effected as shown in Fig. III. These padded arms 22, 23 are adjustably set upon a shaft 24, which is constantly driven by a gear wheel 25, from the gear on the roller shaft 18. In rotating, the padded faces of the arms 22, 23 dip into a trough 26, in which an ample amount of adhesive is constantly maintained. The trough 26 communicates through a duct 27, with a cup 28, adapted to receive the inverted supply container 29. In the present instance, I prefer to use melted paraffin as the adhesive, and

in order to keep the same in liquefied condition during the printing operation, an electric heating coil 30, of appropriate type, is associated with the trough 26, said coil being in circuit with a convenient source of electric current by way of conducting wires 31 connected to the terminals 32.

The upper feed roll 21, is fixed upon a shaft 33, journaled in slide blocks 34, vertically guided in yokes 35; while springs 36, operative upon said slide blocks press the roll 21, into contact with the roll 20 and a positive driving connection is effected through the upper gear of the hereinbefore mentioned spur wheel couple 17. The surface of the upper roll 21 is interrupted, as shown, in order to clear the adhesive prints "d" upon the traversing paper web "P". The rolls 20, 21 are further functional as severing devices in cutting the web of paper "P" into units of the proper size. The severing is accomplished by a knife 37, which is carried by the roll 20, and co-operative with a groove 38, in the upper roll 21. As shown, the knife 37 is received and guided within a longitudinal groove 39, so as to be capable of movement in a radial direction under the influence of springs 40, and it is actuated by means of cams 41 having co-operative annuli 42, and associated segmental plates 43, in accordance with my hereinbefore referred to patent. Preferably the paper web P is not completely severed by the knife 37, but to maintain its continuity is left intact at points 44—Fig. III—as will be readily appreciated without further explanation; and, as it leaves the rolls 20, 21, it is guided through channels 45, assisted by intermediate supporting strips 46, to nip rolls 47 fixed upon a shaft 48 journaled in bearings 49 supported by leaf springs 50.

As hereinbefore stated, paraffin is employed as an adhesive medium and the imprints "d" initially applied to the wrapping paper "P" may become set before the package has been fully formed. In order to insure the proper sealing, I provide the machine at suitable intervals with heating devices—not shown—preferably electrically heated, by means of which the imprints "d" aforesaid are sufficiently fused to bring about a perfect union of the folded wrapper. Such heating devices are located at points, where best adapted to ensure good results as explained in the referred to patent.

From the foregoing it is thought that the operation of this invention will be clearly understood without further detailed description; while it is equally obvious minor detail changes may be effected without departing from the scope thereof, or the sacrifice of any of its advantages.

Having thus described my invention, I claim:

1. In a wrapping machine including a

supply of adhesive with means for maintaining such adhesive in a molten condition during application, the combination of the material feeding and severing platen roller and serial means including single and multiple-faces co-operative with the platen feed roller in applying said adhesive to wrapping sheet material at regions corresponding to the subsequent folds thereof and prior to partially severing such material.

2. In a wrapping machine including a constant supply container of adhesive and means for maintaining such adhesive in a molten condition during application, the combination of a material feeding and severing platen roller and a device including a series of individually-adjustable and radially-disposed rotatable padded arms co-operative with the platen feed roller in applying said adhesive to wrapping sheet material at regions corresponding to the subsequent folds thereof and prior to partially severing such material.

3. In a wrapping machine including a constant supply container of adhesive and means for maintaining such adhesive in a molten condition during application, the combination of a material feeding and severing platen roller with a device embodying a series of adjustable and radially-disposed rotatable padded arms, co-operative with the platen feed roller in applying said adhesive to wrapping sheet material at regions corresponding to the subsequent folds thereof and prior to partially severing such material.

4. In a wrapping machine including a constant supply container of adhesive and means for maintaining such adhesive in a molten condition during application, the combination of a material feeding and severing platen roller with a device embodying a series of individually and relatively adjustable radially-disposed rotatable padded arms co-operative with the platen feed roller in applying said adhesive to wrapping sheet material at regions corresponding to the subsequent folds thereof and prior to partially severing such material, some of said padded arms having multiple faces.

5. In a wrapping machine including a constant supply container of adhesive and means for maintaining such adhesive in a molten condition during application, the combination of a material feeding and severing platen roller with a device embodying a series of individually and relatively adjustable radially-disposed rotatable padded arms co-operative with the platen feed roller in applying said adhesive to wrapping sheet material at regions corresponding to the subsequent folds thereof, some of the padded arms having multiple faces, and associated means co-active with the platen roller for

partially severing the material at predetermined intervals to provide individual wrapping sheets.

5 In testimony whereof, I have hereunto signed my name at Philadelphia, Pennsylvania, this 11th day of September, 1925.

JOSEPH PERCY REMINGTON.

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