July 29, 1924. 1,503,355

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ASSEMBLING APPARATUS FOR CARDS AND GROUPED CIGARETTES

Filed Nov. 5, 1923

Fig. 1

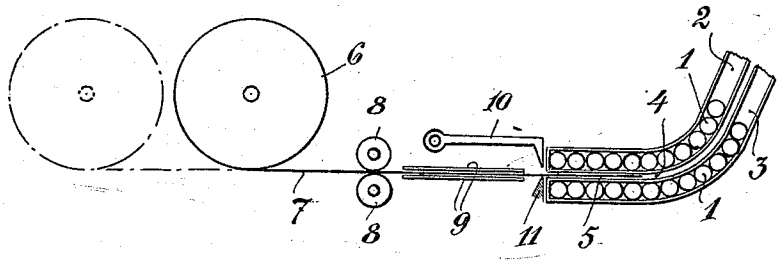


Fig. 2

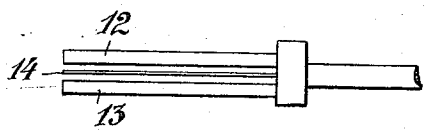
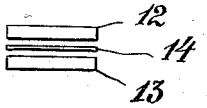


Fig. 3



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UNITED STATES PATENT OFFICE.

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ASSEMBLING APPARATUS FOR CARDS AND GROUPED CIGARETTES.

Application filed November 5, 1923. Serial No. 673,038.

To all whom it may concern:

Be it known that we, GUNNAR CHRISTIAN EKSTRÖM BROR ANDERS EMIL JOHNSON, and GUSTAF ÖRSTRÖM, subjects of the King of Sweden, and residents of Stockholm, Appelviken, near Stockholm, and Stockholm, respectively, in the Kingdom of Sweden, have invented certain new and useful Improvements in Assembling Apparatus for Cards and Grouped Cigarettes, of which the following is a specification.

As well known coupons, photos, partition plates or similar articles often are deposited into cigarette packages or the like. If the said coupons, etc., are deposited mechanically into the packages and are transmitted from a magazine, in which they are piled up separated from each other, one cannot be quite sure that the members of the machine, which effect the transmission, deposit a coupon into each package. In devices hitherto provided for ejecting the coupons located in the magazine it happens, that the said device does not eject any coupon at all or ejects more than one coupon. Besides, it is difficult to construct mechanisms, which will feed coupons two by two, three by three and so one from one or more magazines in a fully reliable manner.

This invention relates to a method, according to which the coupons, etc., are positively withdrawn from a store and also positively transported into the packages respectively, so that each package surely will contain the proper number of coupons. The invention also comprises means for carrying out the said method. The coupons are cut from a band, wound round a reel or stored up in any other suitable manner. The said band is advanced by feeding means to a cutting device, which cuts the band into pieces constituting the coupons. The said cutting device may be located either close to the place in the machine, where the cigarettes are brought together to a set adapted to be packeted, the end of the band being pushed into the said set or on to the same and subsequently cut off, or at some distance from the said place, the piece cut from the band by the cutting device being then positively fed into the set of cigarettes or on to the same. In each case the coupon is positively managed right from the store until it has been incorporated with the set of cigarettes, owing to which fact the failure of a coupon in any of the packages is entirely precluded. If two or more coupons should be deposited in each package the coupons preferably are supplied by a corresponding number of bands.

Fig. 1 in the accompanying drawing shows diagrammatically and as an example a device for carrying out the method in question. Figs. 2 and 3 show in a side view and an end view respectively a piston for moving the cigarettes from the assembling place into a box or the like.

The cigarettes 1 pass through guides or channels 2 and 3 from a cigarette making machine or a magazine, from which they are fed by any suitable means. The lower parts of the said channels are straight and are each capable of holding for instance five cigarettes or a somewhat greater number. Between the channels a chamber 4 is provided, adapted to receive a coupon 5.

A band 7 is wound round a reel 6, on which a row of coupons are printed. Rollers 8, 8 feed the band 7 through a guide 9, located in front of the mouth of the chamber 4. The said rollers 8 feed the band 7 forwards for a distance corresponding to the length of a coupon. The exact feeding of the band may be gained by one of the rollers or both rollers providing the band with the desired print or by the band in connection with the printing operation being provided with perforations, which are engaged by corresponding pins provided on one of the feed rollers, or by the rotation of the feed rollers being controllable or in any other suitable manner. After the end of the band has been inserted into the chamber 4 for the necessary distance the movable member 10 of a cutting device 10, 11 is actuated and cuts the coupon 5 from the band. A piston, comprising two tongues 12 and 13, adapted to enter the lower straight parts of the channels 2 and 3 respectively and a tongue 14, adapted to enter the chamber 4 containing the coupon 5, is then moved transversally of the channels and pushes five cigarettes out of each channel and the coupon 5 out of the chamber 4 and, for instance, through a mouth piece into a box, capsule or the like, constituting the cover

of the package. The said coupon will thus be situated between the two rows of cigarettes contained in the box. The guide 9 of the band 7 may, however, be located at a level higher or lower than that of the channels 2 and 3, in which case the coupon will be placed on the top side of the set of cigarettes contained in the box or under the same. In packages provided with more than one cover one may easily so arrange, by suitably locating the feeding and cutting device, that the coupon will be located between two covers. The members of the feeding and cutting device and the piston 12, 13, 14 are actuated at the proper moments by the driving shaft of the machine by means of suitable motion transmitting members.

The device stated above may be used also for introducing coupons into a half finished package for instance by placing the coupon (or coupons) on the cigarettes contained in an inner box, which not yet has been pushed into the outer box, or for introducing coupons into already finished packages.

The above statements concerning the locating of the cutting device are applicable also to the forms of the invention just mentioned and other forms of the same.

If two (or more) coupons should be placed into the package, the bands preferably are fed from a corresponding number of reels (an additional reel is shown by dotted lines in Fig. 1), in which case the feeding and cutting devices may be common to the bands or a special feeding and cutting device may be provided for each band. The invention may be applied also to such machines, as effect the packing of one row of cigarettes or more than two rows of cigarettes in the box, etc. The band, from which the coupons, photos, etc. are cut, may be of paper, cloth or any other suitable material. In any case the band as well as the coupon, etc., is managed positively, until the coupon has been incorporated with the package, for which reason there is a guarantee of the proper number of coupons being located in each package, which is of importance from a public point of view, because the failure of a coupon may bring the article into discredit. The depositing of coupons, etc., in accordance with this invention may be effected also in the packing of other articles than cigarettes and the means for feeding the band and cutting the same into coupons, etc., and for positively depositing the latter into the packages may be modified in many ways without exceeding the limits of the invention.

We claim:

1. In a device for supplying cards to portions of a matter to be packeted the combination of means for cutting cards from a band, a holder for the portion to be packeted, and means positively moving the card portion of the band into its proper place for being incorporated with the said portion.

2. In a device for supplying cards to portions of a matter to be packeted the combination of feeding means for a band adapted to constitute the cards, cutting means, to which the said band is fed and which cuts off the card from the band, a holder for the said portion, and means which positively moves the card from the cutting means fully into the place in which it is incorporated with the said portion.

In testimony whereof, we have signed our names to this specification in the presence of two subscribing witnesses.

GUNNAR CHRISTIAN EKSTRÖM.
BROR ANDERS EMIL JOHNSON.
GUSTAF ÖRSTRÖM.

Witnesses:
ROBERT APELGREN,
ERNST EHRNER.