Dec. 2, 1941. A. W. PETERSON 2,264,481

MAIL-CARRYING DEVICE

Filed Jan. 2, 1940

Fig. 1

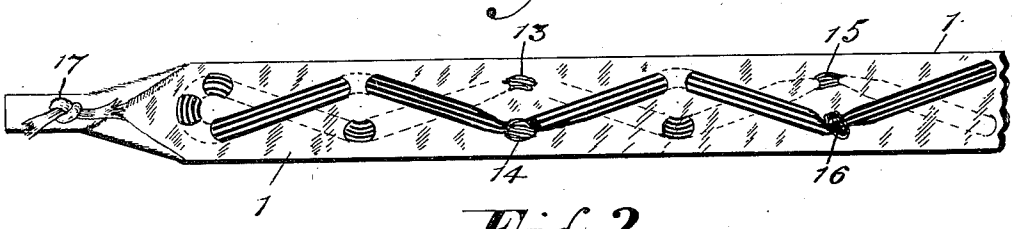


Fig. 2

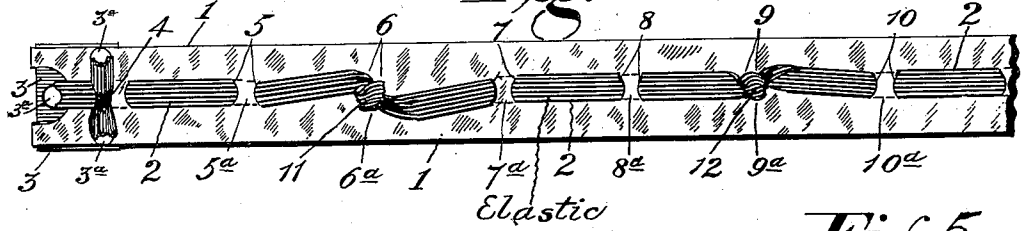


Fig. 5

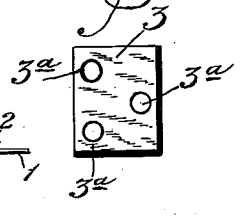


Fig. 3

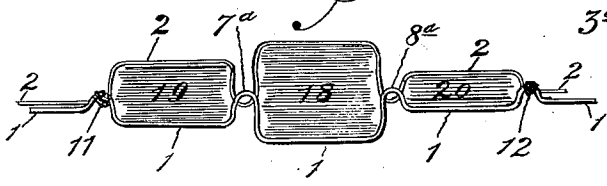
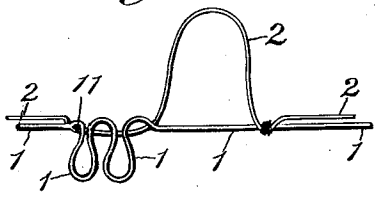


Fig. 4



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MAIL-CARRYING DEVICE

Arthur W. Peterson, Albert City, Iowa

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2 Claims. (Cl. 224—45)

My invention relates to mail-carrying devices, and more particularly to devices for use on rural delivery routes.

Generally speaking, my object is to provide a device of this character which will greatly facilitate the work of the rural mail-carrier by enabling him to do his work more easily and in less time, and with far less liability to make the mistake of delivering mail in the wrong box.

Specifically speaking, my invention provides means for arranging the mail (as it is taken from the rack at the post office), in a single package composed of separate parcels so arranged in the package, at the post office that they only become accessible to the carrier as the rural delivery boxes, for which they are intended, are successively reached by him as he travels his route.

A further object is to so construct the device that the compartments for the separate parcels automatically adjust themselves to the size of the parcels placed in them, however irregular in size or bulk said parcels for the respective boxes may prove to be from day to day.

Another object is to provide a flexible holder for the mail, composed of a plurality of main sections independent of each other, and of given capacities, said main section being each divided into a plurality of subdivisions automatically adjustable relatively to each other, said subdivisions of each individual main section being arranged to operate, up to the capacity of that section, in a manner compensatory to each other.

A further object is to provide a mail-carrying device comprising a broad band formed of flexible material, preferably fabric, and having an elastic band extending longitudinally thereof and fixedly connected thereto at spaced intervals, to form said elastic band into a plurality of independent sections, each of said independent sections being again divided into a plurality of sub-sections slidably connected, between their ends, with said broad band at points spaced from each other thereon.

Other objects will appear in the subjoined description.

For the purposes of this application, the invention is shown as embodying a broad band formed of flexible material, preferably fabric, and having an elastic band extending longitudinally thereof and rigidly connected thereto at spaced intervals, to form said elastic band into a plurality of independent sections, each of said independent sections being subdivided into a plurality of sub-sections slidably connected at spaced intervals with said flexible band, whereby to render said sub-sections automatically adjustable relatively to each other when in use.

The invention consists in certain novel features of construction and specific arrangement of parts, as will be hereinafter particularly described and claimed, reference being had to the accompanying drawing in which:

Fig. 1 is a plan view of a portion of one form of the device in which it is provided with an elastic band on each side of the main flexible band which forms the body proper of the device.

Fig. 2 is a plan view showing the device provided with an elastic band on one side only.

Fig. 3 is a broken diagrammatic view showing how the main flexible band which forms the body of the device, cooperates with the elastic band to adjust the device as a whole to the reception of packages of varying sizes.

Fig. 4 is a diagrammatic view illustrating how three sub-sections, forming one of the independent sections of the device as illustrated in Fig. 2, may all be thrown into one large loop, when so desired, for the reception of a single large package of mail, and

Fig. 5 is a plan view of one of the two similar reinforcing members used with my device.

Referring further to the drawing, the numeral 1 indicates the main band which forms the body of the device. This band is formed of flexible material, preferably fabric of a quality capable of long wear. The numeral 2 indicates an elastic band of good quality suitably secured to the main band 1 at or near the ends thereof and extending substantially throughout the entire length thereof.

In Fig. 2 I have shown the band 1 provided at its end with a reinforcement 3 formed of suitable material such as a small, flat piece of wood or compressed fibre or Bakelite or metal, and this reinforcement is provided with bores 3a. The main band 1 is lapped over the reinforcing member so as to cover both sides of it; and the elastic band 2 is suitably threaded through the fabric of the band 1 and these openings in the reinforcing member, and then tied in a knot 4, whereby both bands and the reinforcing member are very thoroughly held together. The device is provided at each end with one of these reinforcements 3, one of which is shown in operative position at the left end of Fig. 2 of the drawing.

Referring further to Fig. 2, the elastic band 2 is provided with a series of pairs of openings 5, 6, 7, 8, 9, 10, which pairs are preferably equidistant from each other throughout the length of the main band 1, and are formed in the fabric by

piercing the same with a suitable needle or bodkin.

The portions of fabric, between the two members of each pair of openings, are respectively indicated by the indicating characters 5*a*, 6*a*, 7*a*, 8*a*, 9*a*, and 10*a*. The elastic band 2 is threaded through the two pairs of openings 5 and 6, and is tied in a knot 11 to the portion of fabric 6*a*; then it is threaded through the pairs of openings 7, 8, and 9, and again tied in a knot 12 to the portion of fabric 9*a*, and then through the pair of openings 10, etc. It will be seen that the portion of the elastic band 2 between the knots 4 and 11 is formed of two sub-sections slidably received in the pair of openings 5, passing underneath the intervening strip of fabric 5*a*. The next section of the elastic band 2 between the knots 11 and 12, is formed of three equal sections being slidably engaged by the two pairs of openings 7 and 8; and in this form of the device I usually prefer to form all the independent sections of the elastic band, except the end sections, with three sub-sections each.

In the form of the device illustrated in Fig. 1, I have employed an elastic band on each side of the main band 1, and I have zigzagged the bands, as shown, in order to make each one equally central of the main band while keeping the knots 13 and 14 from contacting each other, and also the knots 15 and 16, etc.

In this form of the device shown in Fig. 1, each independent section of the elastic band is formed of two sub-sections; and the end of the device is reinforced by folding one side of the main band upon the other, and then suitably piercing the folded sections and tying them together with a cord forming a knot 17.

The packages of mail are placed underneath the sub-sections of the elastic band 2, and when more mail is placed in one sub-section than in the adjacent sub-section or subsections of its independent group, the extra strain imposed on that overtaxed sub-section will cause the portion of the elastic band normally in the adjacent sub-section or subsections to creep, as it were, through the pair or pairs of openings in the main band 1 adjacent said overloaded sub-section so that in this way any one sub-section of a group may be made to hold as much mail as could be ordinarily placed in all the subsections of that group when normally filled.

The fact that an elastic band is stretched reduces its cross-sectional size and causes it to creep more freely through the pairs of openings between the subsections of a group. And not only does the creeping of the elastic band from one sub-section to another, serve to increase the capacity of an adjacent overcrowded section in applicant's arrangement, but the fact that the main band is thoroughly flexible, cause it to bulge as strain is imposed upon the elastic band and the knots at the ends of the independent sections of the elastic band are drawn toward each other. In this way it is seen that the elastic band, as it bulges from much crowding, causes a compensating bulge in the main band so that when need requires, an unusual amount of mail may be placed in a single sub-section, especially when the adjacent sub-sections are lightly loaded or empty. These facts are made quite plain in Figs. 3 and 4 of the drawing. In Fig. 3 it is plainly seen how a section of my device having three sub-sections will adjust itself to snugly hold the mail for three rural delivery boxes in a case where there is a great variation in the quantity of mail to be delivered in each box. It is here shown how the main band 1 bulges downwardly as the elastic band bulges upwardly under strain, and how the two bands cooperating together equally grip the three very different sized packages of mail 18, 19, and 20, by reason of the fact that the elastic band 1, when strain was imposed upon its central portion by the unusually large package 18, crept inwardly through the openings at 7*a* and 8*a* of the main band; and this inward movement of the elastic band 2 drew the knots 11 and 12 toward each other, and this, in turn, caused the lower band 1 to bow downwardly as shown. From this it will be seen that even if the band 2 were not elastic at all, yet my device, by reason of the fact that the lower band is very flexible and not used like a belt or in any way that would tend to keep it taut, would yet, in large measure, adapt itself to the reception of packages of greatly varying sizes.

In Fig. 4 of the drawing, I have shown how the whole capacity of three subsections may be concentrated, as it were, into a single subsection, the portion of the main band 1 normally traversed by the other two sub-sections, being compressed into two downwardly-extending loops, thereby permitting nearly the whole capacity of the three elastic subsections of the group to be formed into one very large upwardly extending loop for the reception of an exceptionally large package of mail for a single rural box.

In practice, my device is used as follows: When the mail for a route has been racked in the usual way at the post office, with the packages of mail for each box along the route, arranged in the order in which the boxes are successively reached by the carrier, the mail for the last box is taken out of the rack first, and placed in the first sub-section at one end of my device; then the next package of mail for next to the last box on the route is taken out of the rack and placed in the second sub-section of my device next to the package first mentioned, etc., till all the packages have been successively removed from the rack and placed in the successive subsections of my device. And since the device prepared for a given route has approximately as many subsections as there are boxes on the route, it will be seen that when the last package designed for Box No. 1 of the route is reached, the device will have in it all the mail for that day's delivery. Then, beginning at the end of the device where the first package of mail (the package for the last box of the route), was placed in the first sub-section of my device, the device is rolled up into a roll and tied. As will be seen, this will bring the package of mail for Box No. 1, at the outer end of the rolled-up device, so that it will be the first package rendered accessible to the carrier when he reaches Box No. 1 of his route, and begins to unroll his batch of mail for the route. As he reaches the successive boxes along his route, the appropriate packages of mail for those boxes become successively accessible to him as he unrolls the device, so that if he only observes the simple regulation of not unrolling the device faster than is necessary, it will be well-nigh impossible for him to make the mistake of delivering a package of mail to the wrong box.

The main band may be provided with means permanently carried thereby for tying up the package in a roll at the post office after it has been made up: as for instance, a strong double

cord may be permanently tied at its middle in the opening 3*a*, in the reinforcement 3, shown in Fig. 2 of the drawing. But a suitable arrangement for tying up the package of mail in a roll is such a simple matter that it only needs to be mentioned here.

From the foregoing, it will be seen that my device is a great convenience and also a great time-saver for mail carriers, to say nothing of the fact that it gives large insurance against the mistake of delivering mail in the wrong box.

Other details in the construction and use of my device might be mentioned, but it is believed that enough has been said to clearly disclose the spirit and scope of the invention, as set forth in the appended claims.

What I claim as new and desire to protect by Letters Patent is:

1. A device of the character described, comprising a main band formed of non-resilient flexible material and provided on each side with an elastic band extending longitudinally and substantially centrally thereof in zig-zag fashion, and fixedly connected thereto at spaced intervals, whereby to form each of said elastic bands into a plurality of independent sections on the main band, said independent sections on each side of the main band being divided into sub-sections slidably connected with the main band, whereby to render said sub-sections adjustable relatively to each other and to the main band; the sub-sections of the elastic band on each side of the main band being arranged to bring the central portions of the successive sub-sections on one side of the main band directly opposite the central portions of the successive sub-sections on the other side of said main band, whereby a package of mail inserted in any one of the sub-sections on either side of the main band will have imparted to said package broadly distributed and evenly balanced elastic pressure on both its inner and outer sides.

2. In a device of the character described, a main band formed of flexible non-resilient material designed to be rolled into a roll having its axis at right angles to the longitudinal extent of the main band; said band being provided with an elastic band extending longitudinally and substantially central thereof in zigzag fashion, and connected thereto at each bend in the zigzag formation, whereby to form the elastic band into a plurality of sections for the reception of packages of mail, the inclination of said zigzag sections of the elastic band being at a sharp angle to the longitudinal extent of the main band, whereby when packages of mail are inserted underneath said zigzag sections of the elastic band, they will be inclined at a slight angle to the axis of the roll formed by rolling up the broad band into a roll; and whereby the rolling-up process will tend to bring the longitudinal extent of the packages of mail into parallelism with the axis of the roll, thereby giving edgewise binding to the packages of mail when the device is rolled-up, and preventing endwise movement of the packages of mail in the roll.

ARTHUR W. PETERSON.