April 16, 1929. J. C. NELSON 1,709,034

PACKAGE

Filed March 15, 1926

Fig. 1.

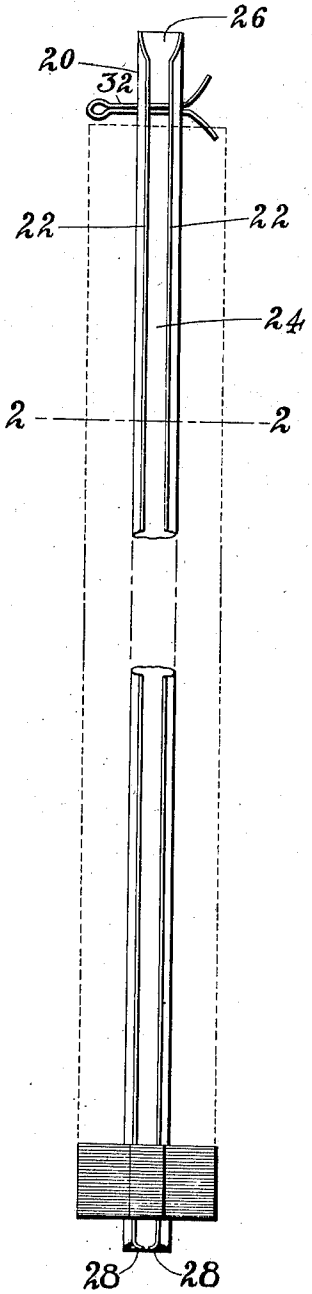


Fig. 2.

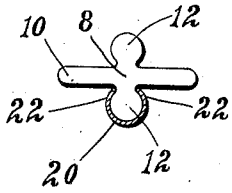


Fig. 3.

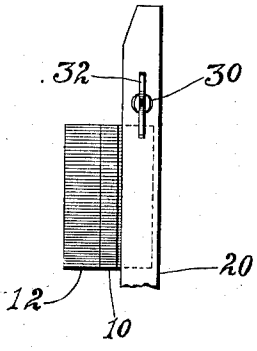


Fig. 4.

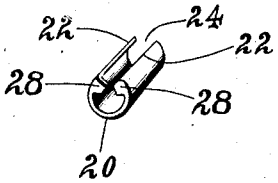
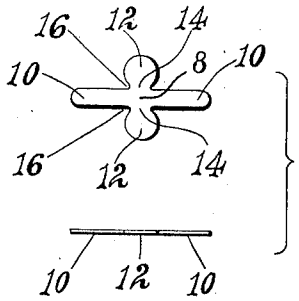


Fig. 5



INVENTOR-

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Patented Apr. 16, 1929. 1,709,034

UNITED STATES PATENT OFFICE.

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PACKAGE.

Application filed March 15, 1926. Serial No. 94,900.

This invention relates to packaging devices and to packages formed thereby, and more particularly to devices in which a plurality of articles are packaged in serial or stacked relation. The invention is illustrated as embodied in an improved package of sheet metal blanks designed to be used as clasps for envelops but is not limited to articles of that description.

It has been heretofore proposed to package articles of one kind or another in a container of tubular form and of a size to enclose all or the major portion of each article. Nevertheless, some articles to be stored or transported and otherwise handled in quantities are so shaped as to be susceptible of being packaged in serial relation without being wholly or nearly all enclosed, and in view of that an object of the invention is to provide an improved package that will be more economical both in the quantity of material used in the package-forming device and in the operations required to form it.

Accordingly, a feature of the invention consists in a package comprising a series of articles each having oppositely arranged notches, and a holder made of sheet material, preferably metal, and of tubular form but having oppositely projecting marginal portions embodying clincher formations and a slot extending longitudinally between them, the holder being formed to embrace a portion only of each article, while the slot permits the articles and the holder to be interlocked by sliding said marginal portions into said notches. Thus, by forming the holder to provide a sliding clincher connection with a suitably formed portion, less than the whole, of each article to be packaged, a great saving may be effected in the cost of the holder without sacrificing utility thereof.

It may be understood by reference to the illustrated exemplification of the invention that a holder of a given shape and size may be used to package articles of various shapes and sizes, provided each article has a portion adapted to enter the holder and form a clincher connection therewith. This is an advantage, for example, when articles of graduated sizes or of different styles have each a clincher connecting portion of a standard shape and size to cooperate with a holder of standard cross-section.

Referring to the drawings, which illustrate one embodiment of the invention as designed to suit the requirements of sheet metal envelop clasps,

Fig. 1 is an elevation of a package, to some extent represented conventionally, comprising a holder and a series or stack of articles held thereby;

Fig. 2 is a cross section through such package (see line 2—2 of Fig. 1);

Fig. 3 is an elevation of that portion of the package that forms the upper part of Fig. 1 as seen from the right hand side;

Fig 4 is a perspective view of a portion of the holder at the other end; and

Fig. 5 includes a face view and an edge view of a sheet metal blank designed to be applied to an envelop to form a clasp therefor and representing a typical example of the type of article for packaging for which this invention has marked advantages.

The illustrated holder is adapted to form a package of articles of the character illustrated in Fig. 5, but it must be understood that the invention is not limited to this type of article and that the latter is illustrated and described merely to furnish a concrete example.

The article illustrated is an envelop clasp in the form of a flat blank of thin sheet metal and comprises two circular heads 12, 12, and a relatively wide portion between them including a body portion 8 and two tongues 10, 10 projecting laterally in opposite directions therefrom. The body portion 8 and the heads 12 are connected by neck portions 14, and the notches or indentations 16 are utilized, as hereinafter explained, to receive retaining flanges of a packaging device or holder. Although the article shown by Fig. 5 is symmetrical, this characteristic is not of consequence in so far as this invention is concerned, since only one of the heads 12 is utilized to maintain the package-forming connection between the article and the holder.

The holder for forming the package comprises a tubular receptacle 20 preferably made, for economy of manufacture, of sheet metal stamped to the required size and then rolled into tubular form so that its cross-section will conform closely to the contour of the heads 12, although the two longitudinal edges 22 are not brought into contact with each other but are left far enough apart to form a slot 24 of a width slightly greater than the necks 14 of the articles to be packaged. Each edge 22 therefore constitutes an article-

retaining flange and each of said flanges (see Fig. 2) embodies a clincher formation. The articles are packaged by inserting one head 12 into the interior of the tubular member at one end of the latter, the upper end as shown in Figs. 1 and 3, the notches 16 of the portion engaging the tubular member being adapted to receive the retaining flanges 22. All other portions of the illustrated article remain outside the holder, since the inserted head 12 is sufficient to form an interlocked or clincher connection between the article and the holder.

The slot 24 in the tubular member also enables the receiving and discharging end to be compressed slightly so that when it is inserted into a tight-fitting socket of a charging apparatus or of a discharging apparatus such as that shown in Novick Patent No. 1,508,467, September 16, 1924, it will maintain a frictional hold sufficient to keep it in place.

To facilitate assembling the articles and the tubular member the flanges 22 are preferably cut at an inclination at the receiving end of the holder to provide a funnel-shaped mouth as indicated at 26. At the opposite end the tubular member is preferably provided with one or more permanent abutments 28 (Fig. 4) formed and arranged to prevent the articles from escaping from that end. These abutments are preferably formed as integral ears or tabs and are bent toward each other before the articles are packaged.

Two transverse holes 30 are formed in opposite sides of the tubular member near the receiving end to permit a retaining member such as a split cotter pin 32 to be inserted through them, as shown by Fig. 1, after the full complement of articles has been placed in the holder. In practice, the entire space between the abutments 28 and the holes 30 will be substantially filled with articles before the pin 32 is inserted, Thus leaving little or no unoccupied space to permit the articles to slide or to be otherwise disarranged after the package has been completed by inserting the pin. The articles represented at the lower end of Fig. 1 are spaced a short distance from the abutments 28 solely for the purpose of illustrating the latter to better advantage, but it will be understood that in practice this space will be filled with articles when the package is completed.

The arrangement of the cotter pin 32 provides for removing said pin after the mouth 26 of the member 20 has been inserted into a socket of a discharging apparatus, for example a socket in a machine equipped with a raceway for conducting the packaged articles to fastener-applying mechanism. This feature solves the problem of preventing the articles from dropping out of the mouth 26 while the latter is being inserted into such a socket.

By packaging the articles in the manner explained, they are maintained in alinement and in contiguous relation to each other and form in effect a solid mass whereby portions that would otherwise be easily bent or otherwise damaged in handling are reinforced one by another.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. A package comprising a series of articles each provided with oppositely arranged notches, a hollow elongated sheet metal receptacle of clincher cross-section engaging said notches to maintain the articles interlocked therewith, and means for preventing the escape of the articles from the ends of said receptacle.

2. A package comprising a series of articles each provided with a body portion, a head and a relatively narrow neck connecting them, and a hollow elongated sheet metal receptacle of clincher cross-section conforming closely to and embracing said heads and necks to maintain said articles in alinement with each other, and means for preventing the escape of the articles from the ends of said receptacles.

3. A package comprising a series of articles, a hollow elongated receptacle having a cross-section formed to maintain the articles in alinement with each other, one end of said receptacle being open to discharge the articles, and a split cotter pin extending through holes formed in opposite sides of said receptacle near said end to confine the articles in the latter and to provide for insertion of said end into a socket before the cotter pin is withdrawn to release the articles.

In testimony whereof I have signed my name to this specification.

JAMES C. NELSON.