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G. SINS

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WRAPPING TAPE

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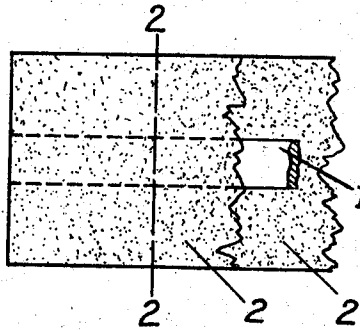


Fig. 1



Fig. 2

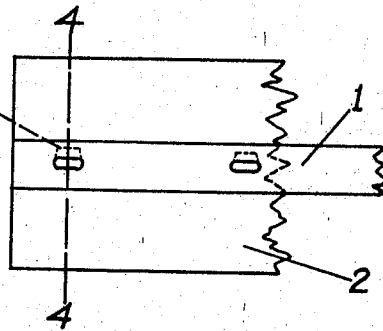


Fig. 3

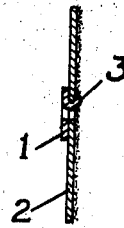


Fig. 4

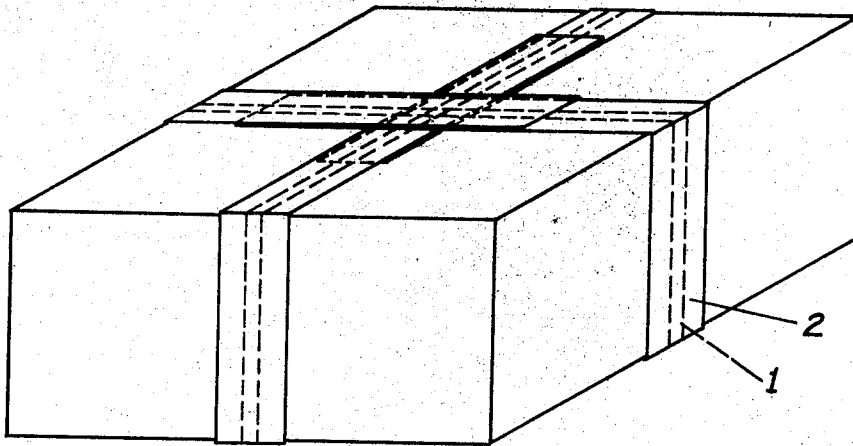


Fig. 5

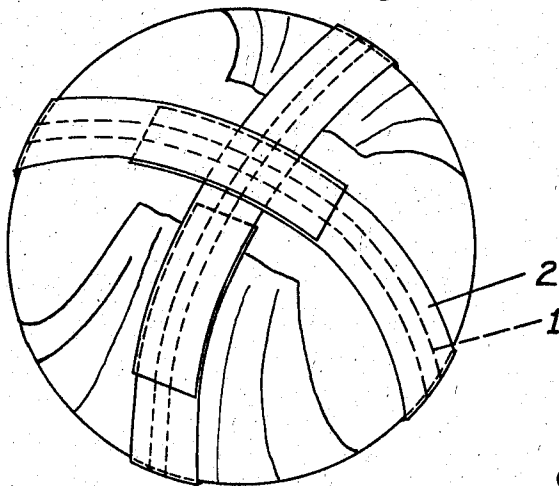


Fig. 6

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# UNITED STATES PATENT OFFICE

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## WRAPPING TAPE

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3 Claims. (Cl. 24-17)

The invention to be hereinafter described relates to flexible metal wrapping tape for securing bundles, with adhesive attaching means.

Flexible securing means for wrapping bundles are of a very wide variety, including a considerable number of flexible metal securing means. Wire and flat metal bands are both known. Textile tape is also known. Likewise, gummed paper wrapping strips which come in rolls are well known. Also, it is obviously old to "stick" parts together with paste, glue, etc. In sticking parts together, the securing means is the adhesive and adds only the strength of the adhesive. With cord, wire, tape, and similar flexible means, there is always slippage between the bundle and the securing means and it is very difficult to keep the securing means in operative position, especially with a bundle of curved surface or of irregular shape. If there is much handling, the securing means soon works loose and the bundle becomes unwrapped. This is a great and ever present trouble in parcel post, express and all of the shipping departments where large numbers of bundles are continually handled. The strengthening and bracing effect of the wire, tape or other binder or securing means is totally lost when it becomes loose by shifting. And the trouble is not appreciably lessened by special ways of arranging the securing means or special material of the securing means. With bundles or objects of irregular shape, or tapered in one direction or another, or having curved surfaces, such as balls, this trouble is many times multiplied. The real difficulty lies in preventing relative movement between the surface of the bundle and the securing means, without actually incorporating the securing means in the material of the container or bundle wrapper, in the process of manufacture. The present invention completely avoids all of the above difficulties, and others, and provides a simple, efficient, inexpensive and durable bundle securing means, carrying an attaching medium by which the securing means may be attached to the bundle in such manner as to be permanently anchored or fastened to it and remain in its original position regardless of the shocks and strains of shipping and handling, and regardless both of the type and character of the bundle, and of its shape, whether angular, tapered, or curved. Briefly, this securing means will "stay put" under any and all circumstances, and will strengthen and brace the bundle from start to finish. With it there is absolutely no lost efficiency during use.

In order to more clearly disclose the construction, operation and use of the invention, reference should be had to the accompanying drawing forming part of the present application. Throughout the several figures of the drawing, like reference characters designate the same parts in the different views.

In the drawing:—

Fig. 1 is a bottom plan view, of one form, with the attaching element partly broken away;

Fig. 2 is a cross section on line 2—2 of Fig. 1 greatly magnified as to thickness;

Fig. 3 is a bottom plan view of a modification;

Fig. 4 is a cross section on line 4—4 of Fig. 3 greatly magnified as to thickness;

Fig. 5 is a perspective view of a rectangular package, with the invention applied, and;

Fig. 6 is a view of a round bundle with the invention applied.

As is well known, parcel post bundles, packages, etc., are required to be so wrapped as to permit ready examination of their contents. For that purpose, the overlapping ends of the flexible securing means may be bared by removing that part of the adhesive coated attaching means. With securing means of round cross section, the ends may be twisted or tied together, so that they may be readily untwisted or untied and the bundle opened for inspection. With securing means of flat cross section anyone of a number of well known clips may be used for binding the ends together, in well known manner. These clips are readily removed and replaced. This is all so obvious that there is no need to clutter the file with further drawings or descriptions concerning it.

Throughout the application it is to be understood that the term, flexible metallic member includes all forms practicable for the purposes for which this invention is intended, regardless of cross sectional shape, and regardless, also, of uniformity of configuration. Such members, also, may be punched, perforated, notched, etc. And, too, a flat strong, flexible, textile tape, may be similarly incorporated, or a strong wrapping cord. Where the term flexible attaching means or medium is used, it shall be understood as including textile as well as paper. Textile or cloth strips may be used in place of paper. Any suitable adhesive may be used on the flexible attaching means, whether that means be paper or textile. While the drawing, for simplicity, shows only a single metal member, centrally and longitudinally, it is to be understood that more than one metal member may be incor-

porated and that where several such members are used, one or more may or may not extend centrally and lengthwise. However, all members, where there are more than one, should be substantially parallel. With the above understanding, reference is now made to the drawing in detail. The flexible securing means or member 1 by which the bundle is to be bound together and firmly held for shipment or the like is, in the preferred form, enclosed between two gummed paper or textile strips 2 of considerably greater width, the under strip which would fall next the surface of the bundle, having its gummed surface outermost, while the gummed surface of the other strip engages the securing means and the ungummed surface of the lower strip. In this way, the securing means is carried in a pocket between the two strips. The two flexible strips act as a carrier and positive permanent anchor for the securing means, to attach it to the bundle or package being wrapped. In its application to a bundle, a sufficient length of this device is taken, as one would use cord, tape or any other flexible securing or wrapping means, and the gummed surface is moistened. It is then drawn very tightly around the bundle and pressed firmly to the surface, thereby securely attaching and anchoring the securing means in operative position against slippage. The flexible securing means is amply strong to stand the strain of a hard pull and does not break. Since the attaching means is carried by the securing or wrapping means or member 1, said anchoring or attaching means 2 is under no strain in wrapping the bundle. As the attaching means is sealed or stuck to the bundle throughout its length, the securing means will be permanently anchored in place so that there can be no relative movement between securing means and the bundle surface. Actual test under very severe shipping conditions has had no appreciable effect on this device, the securing means remaining sealed or solidly anchored in original position about the bundle, without break or slip of any kind and the bundles coming through exactly as started.

Actually, the device is a combination of securing means performing all the functions of a rope, cord, tape or band in the way of holding a bundle or package together; with a definite, continuous, flexible anchoring or attaching means carried by the securing means. Thus, the anchoring means maintains the securing means in original operative position at all times and under all conditions. It also absolutely prevents any relative movement or slippage between the securing means and the surface of the bundle, regardless of size or shape, whether it be a rectangular box, a tapered package, a wrapped ham, a ball or what not.

In the modification of Fig. 3, a single flexible strip with adhesive surface is used. The securing member there shown is flat and has tongues 3 punched out and forced through the attaching strip and then clamped down upon it, thereby locking the two together.

It is thought that the construction, operation and use of the invention will be clear from the

preceding detailed description. It is obvious that, when the device is drawn tightly about a bundle and stuck thereto throughout its length, and one end lapped over and stuck on top of the other end, as shown, that the bundle will be very solidly, strongly, and permanently secured, the strength of the securing means being relied upon to hold the bundle, and the adhesive of the attaching means being relied upon to anchor the securing means and maintain it in position against working loose.

It should be remembered that the securing means is definitely and permanently attached to the surface of the bundle, throughout the length of the securing means and that it remains so when the bundle is opened for inspection or when it is unwrapped. So, in rewrapping, the securing means is automatically immediately restored exactly to its original securing position. It is not necessary to apply new securing means or to reapply the old—the act of rewrapping re-applies the securing means in its original position. This is a great saving in time and trouble, as will be obvious.

This device may be made in quantity and put up in rolls or on spools just as adhesive coated paper fastening strips are now marketed. It will then be drawn from the roll or spool and used in much the same way, as will be readily understood.

Having thus described my invention, what I claim and desire to protect by Letters Patent is:—

1. A bundle wrapping tape of indefinite length, comprising a pair of flat flexible strips of indefinite length, said strips being gummed on the inner and outer faces thereof, a flat pliable metallic securing means enclosed and adhesively confined between the flexible strips by means of said inner gummed faces, the outer gummed faces serving as one of the means for adhesively securing the ends of the tape to each other and to the bundle and the pliable metallic securing means serving as an additional securing means for securing the tape to the bundle.

2. A non-resilient bundle wrapping tape comprising a pair of flat flexible anchoring strips of indefinite length, a flat pliable metallic bundle securing means of indefinite length between the same, adhesive securing said strips together about said metallic bundle securing means, and adhesive on said anchoring strips adapted to permanently maintain said securing means in operative position.

3. A flexible bundle wrapping tape comprising tensily strong flexible uninterrupted securing means of indefinite length and a flexible strip of indefinite length connected with said securing means against relative bodily movement so as to constitute a composite wrapping tape adapted to be wrapped about an object, said flexible strip constituting an anchoring means for said securing means and being provided with an adhesive coating whereby said flexible strip may be adhesively secured to the face of said object to anchor said securing means against movement relative to said object.

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