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PACKING PACKAGED GOODS
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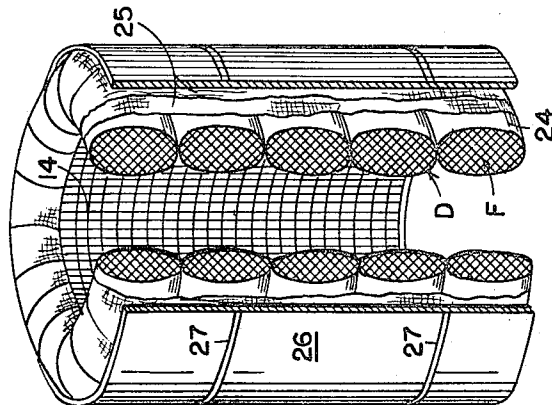
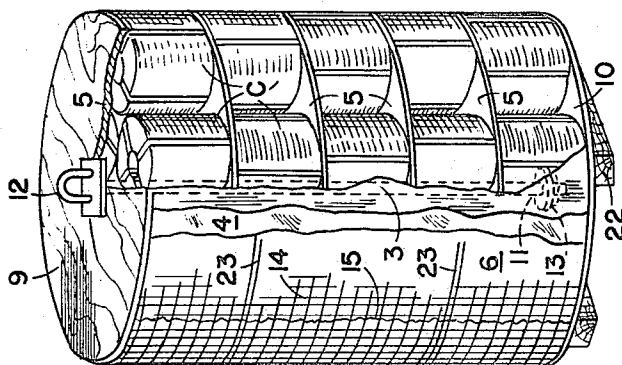
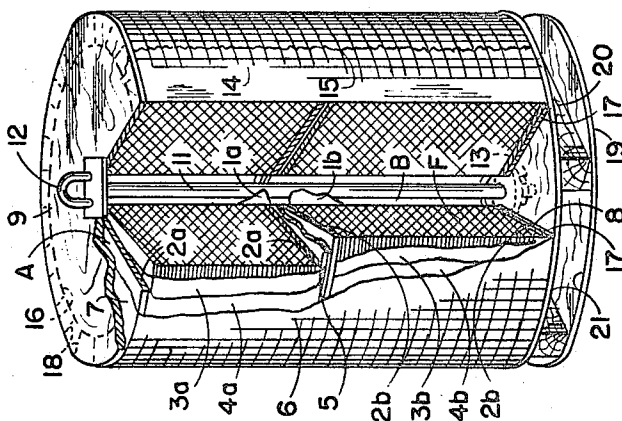


FIG. 2



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PACKING PACKAGED GOODS

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ABSTRACT OF THE DISCLOSURE

Cylindrical wire netting enveloping packaged objects arranged in substantially cylindrical piles and transversally stiffening said piles.

The present invention relates to the packaging and packing of goods, particularly of wire and metal strips, packaged in reels, coils, rolls, bundles and like objects.

It is an object of the present invention to provide improved, efficient and relatively inexpensive means for packing packaged products, such as wire, metal strips, etc., in the form of reels, coils, rolls, bundles or the like.

It is another object of the present invention to arrange articles or other products packaged in the form of reels, rolls, coils or the like, to form one or more piles, the piles being combined with packing elements including means for exerting axial pressure on the piles, impermeable coverings and wire netting for transverse stiffening of the completely piled unit.

It is known that packing of such reels, coils, rolls, bundles and like objects in wooden or metal barrels is common, but such packing is rather expensive. If the packing of said objects is to withstand properly rough handling, the returning of empties is quite expensive.

These inconveniences and expenses are obviated by the present invention which provides means for the packing of packaged goods subjected to rough handling. It consists of forming one pile at least with objects, articles and other products packaged in form of reels, coils, rolls, bundles, or like objects, such pile or piles being combined with packing elements including at least one means of exerting axial pressure on the pile or piles, and a wire netting for transverse stiffening of the complete pile or set of piles, said means also including two rigid plates, between which at least one pile is placed, and at least one axial longitudinal bolt for pressing the plates against the ends of the pile, and surrounded by the above mentioned wire netting.

In another embodiment of the invention, the aforementioned means, in the case of a single pile of coils or rings, consists of a plurality of strips, each forming one or more longitudinal loops surrounding each radial longitudinal section of the pile; while a cylindrical wire netting is applied to the inner side of said pile and/or to the outer side thereof.

In yet another embodiment, the packaged goods are first wrapped with one or more impermeable flexible sheets, and covered with the said wire netting.

The various goods piled up should preferably be separated from each other by means of, for example, plywood separators.

All of the foregoing will in part be obvious and apparent and will in part be more fully pointed out as the nature of the invention is better understood in the progress of the disclosure below. To the end of attaining the foregoing objects and advantages and any others hereinafter reasonably appearing, it will be explained that the invention consists substantially in the combination, configuration, location and function of parts, as hereinde-

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scribed in detail, although it will be apparent that the physical embodiments delineated, albeit the preferred exemplification, are only indicative of but certain of the multiplicity of ways in, and purposes for, which the principles of the invention may be employed.

Referring to the drawings:

FIGS. 1 to 3 show in perspective three embodiments of the invention, certain parts being removed.

Reference will now be made to FIG. 1 which shows in one embodiment of the invention how it is possible to pack wire, indicated by reference character F, or metal strips, or cables, packed in coils, the wire being wound upon coil shells made of wood, metal or plastic material. FIG. 1 shows a single pile comprising two coils of wire F indicated by the reference characters A and B, respectively. Each coil has the coil shell with its core, indicated respectively by the reference characters 1a, 1b, a clamping plate indicated respectively by the reference characters 2a, 2b, and two layers indicated respectively by the reference characters 3a, 4a and 3b, 4b, of oiled paper and/or other impermeable sheets to prevent the wire from becoming corroded by the surrounding air, moisture and other weathering agents. Coils A and B are piled one on the other and are separated from each other by means of a member such as disc 5 made of suitable material, such as, for example, plywood or plastic material. The piled assembly comprising coil A, disc 5 and coil B is wrapped in an impermeable sheet 6 preferably covering the outer sides 7 and 8 of the clamping end plates 2a and 2b. This piled assembly is longitudinally pressed between two circular plates 9 and 10, made of wood or other suitable material, and clamped by means of an axial bolt 11, the head 12 of which is preferably shaped into an eye for easier handling of the said piled assembly so packed. Bolt 11 is secured by nut 13.

A wire netting 14 surrounding the piled assembly is used for transversely stiffening the latter. Both longitudinal edges of wire netting 14 are welded or otherwise fastened together as indicated at 15. In addition, the end portions 16 and 17 of the cylinder thus formed are preferably turned down under plates 9 and 10 and connected by means of double pointed nails or other suitable fasteners 18. Such packing may be fixed to a pallet 19 provided with strips of wood 20 or other suitable material spaced apart to provide an opening into which the fork of a lifting and transporting apparatus may be introduced so that this packing may be easily handled.

It is apparent that a packing of the foregoing type comprises, in general, a combination of simple members or elements, namely, plates 9 and 10, bolt 11 with nut 13, wire netting 14 to which may be added disc 5 and impermeable sheets 3a, 4a, 3b, 4b and 6. These elements, with the possible exception of the impermeable sheets, can be easily stored and transported in the form of flat pieces, and may be readily reused for the same or similar purposes.

FIG. 2 discloses another embodiment of the invention utilizable for packing a large number of relatively small units in the form of rolls or coils generally indicated by the reference character C. A plurality of units C may be placed in horizontal contiguous relation and the pluralities of units C arranged in layers in stacked relation, one plurality of units C over the other, separated by the separators or disc 5, except the two outer ones. Units C should be placed one over another to form several piles, parallel to each other. Impermeable sheets 3, 4, 6 surround the whole set of piles. The central bolt 11 having the head 12 and engaging nut 13 axially presses the two plates 9 and 10 against the above-mentioned piles or stacked pluralities of units C, and the ends of wire netting 14 are fixed to the circular edges of plates 9 and 10 by means of

fasteners such as double pointed nails, etc. A plate or similar member 10 is raised by means of strips of wood 22 or similar spaced cross members. Like in FIG. 1, both longitudinal edges of wire netting 14 are welded or other wise fastened together as seen at 15.

It will be noted that in the example shown in FIG. 2, strips or similar members 23 may be used for hooping the plurality of piles or stacks of units C either directly or by transmitting the pressure first to the wire netting 14. Similar hoops may be used in the embodiment shown in FIG. 1.

FIG. 3 discloses a plurality of stacked coils D of wire F, the whole constituting a single pile. Each coil is covered with one or more impermeable sheets 24. The set of stacked coils D is axially maintained by means of one or more flexible strips of jute 25 or other suitable material wound to form several loops surrounding each radial axial section of the set of coils, for instance, the sections shown at the left or right hand side of FIG. 3. The cylindrical wire netting 14 is applied to the inner side of the pile or set of coils, while a wound covering layer 26 made of wood or other suitable material or a cylinder made of plywood or other suitable material, is applied to the outer side of said pile or set of coils by means of a plurality of metal strips 27 used for hooping the latter. It is understood that the wire netting could be applied to the outside of the set of coils, and that the wood layer could be applied to the inner side of the set of coils. Wire netting could also be applied to the inner side and the outer side of the pile of coils.

It will be apparent that the modes of applications of the improvements as hereinabove described and as illustrated in the accompanying drawing have been given solely by way of non-limitative examples, that the invention is not restricted to the examples shown in the drawings, and that any and all detail modifications can be made therein without consequently departing either from the scope or the spirit of the invention.

I claim:

1. Packing comprising at least one cylindrical pile of packaged products in the form of coils, reels, rolls or the like, packing elements combined with said pile, said elements including at least means exerting axial pressure on said pile and cylindrical wire netting enveloping said pile and substantially transversally stiffening said pile.
2. Packing according to claim 1, and wherein said elements further includes a wrapping of at least one impermeable flexible sheet covered by said netting.
3. Packing according to claim 1, further comprising a plate interposed between adjacent layers of said products.
4. Packing according to claim 1, said means comprising rigid plates between which said pile is positioned and an axial longitudinal clamping device pressing said plates against the ends of said pile, said wire netting enveloping said pile.
5. Packing according to claim 4, and wherein said netting is turned inwardly at its ends against the inside faces of said plates.
6. Packing according to claim 4, further comprising a pallet connected to one of said plates, said pallet comprising a platform and spaced cross members providing

a space therebetween to accommodate the fork of a lifting apparatus.

7. Packing according to claim 4, and wherein said elements further include a wrapping of at least one impermeable flexible sheet covered by said netting.

8. Packing according to claim 1 and wherein more than one pile of said products are provided, the piles of products being arranged parallel to each other.

9. Packing comprising a cylindrical pile of packaged products in the form of coils, rolls, reels or the like, said pile being divided into layers, each layer having a plurality of said products, separators between said layers, packing elements combined with said pile, said elements including at least means exerting axial pressure on said pile and cylindrical wire netting transversely substantially stiffening said pile.

10. Packing according to claim 9, said means comprising plates between which said pile is positioned and at least an axial longitudinal clamping device pressing said plates against the ends of said pile, said wire netting surrounding said pile.

11. Packing according to claim 10, and wherein said elements further include a wrapping of at least one impermeable flexible sheet covered by said netting.

12. Packing comprising a cylindrical pile of packaged products in the form of coils, reels, rolls or the like, one product being arranged above another in stacked relation, means for axially maintaining said products in stacked relation, said means comprising at least one flexible strip wound to form several loops surrounding each radial axial section of said products, and cylindrical wire netting applied to said pile.

13. Packing according to claim 12, and further comprising a covering encompassing said piles, and means to secure said covering.

14. Packing according to claim 12, said netting being applied to the outer side of said pile.

15. Packing according to claim 12, said netting being applied to the inner side of said pile.

16. Packing according to claim 12, said netting being applied to the outside of said pile, a covering disposed over said netting, and means for securing said covering.

17. Packing according to claim 12, said pile having an outer side and an inner side, said wire netting disposed over one of said sides, a covering disposed over the other of said sides, and means for securing said covering.

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