

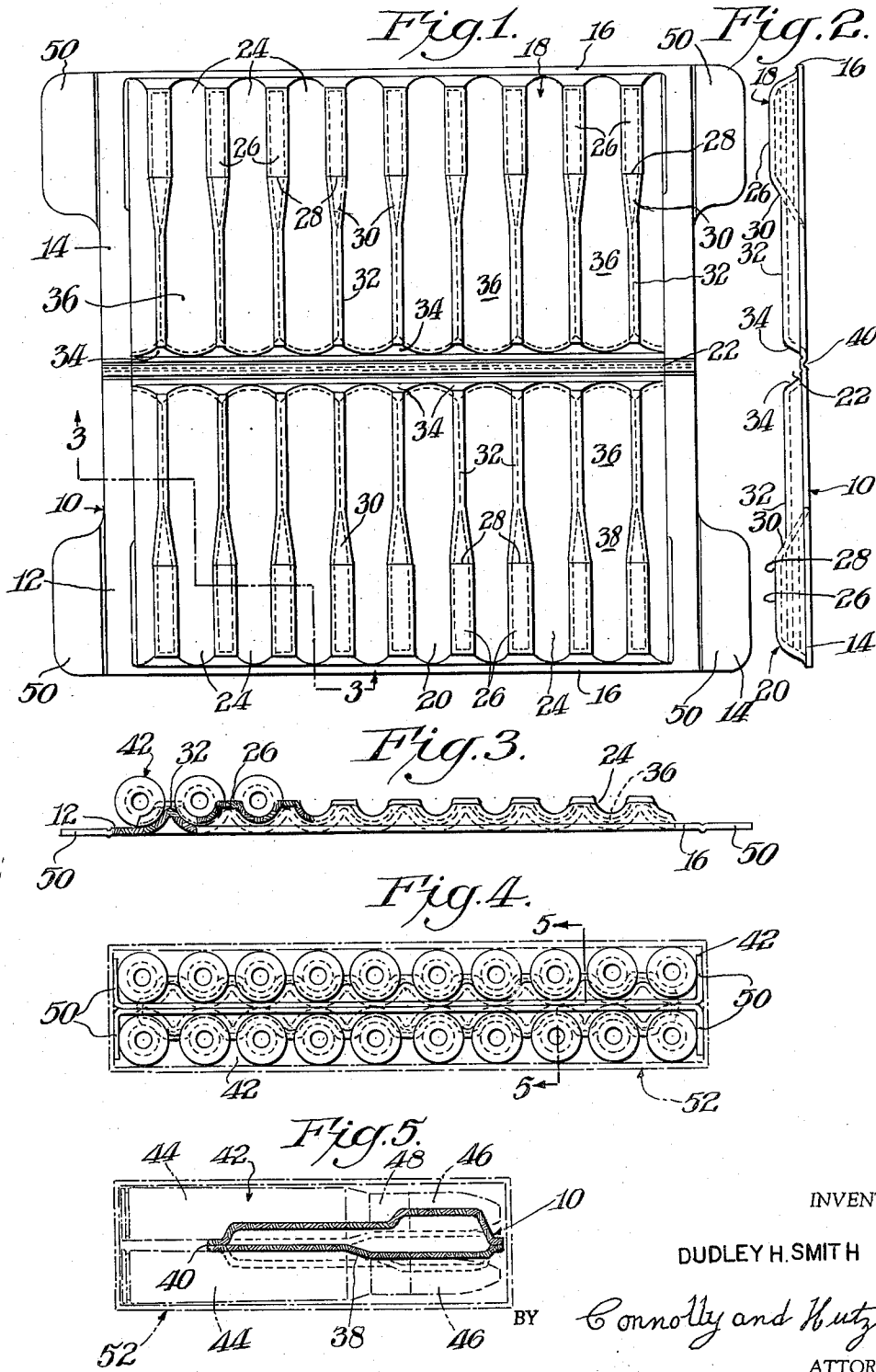
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CARTRIDGE PACKING MEANS

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CARTRIDGE PACKING MEANS

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This invention relates to a spacer device, and it particularly relates to a spacer device constructed of molded paper pulp material and designed for packing cartridges.

There have, heretofore, been various attempts to design an effective packing means for cartridges which can sturdily support the cartridges in cushioned, spaced relationship to each other but which will be neither too bulky nor too expensive. None of these prior attempts have, however, effectively solved the problem.

It is, therefore, one object of the present invention to provide a packing means for cartridges which is simple in construction and inexpensive to manufacture.

Another object of the present invention is to provide a packing means for cartridges which, although occupying only a minimum of space in the package, provides a most effective spacing and cushioning effect.

Other objects and many of the attendant advantages of this invention will be readily appreciated as the same become better understood by reference to the following detailed description when considered in connection with the accompanying drawings wherein:

FIG. 1 is a top plan view of a packing means embodying the present invention, the device being shown in its open position;

FIG. 2 is a side view of the device of FIG. 1;

FIG. 3 is a view partly in elevation and partly in section, taken on line 3—3 of FIG. 1;

FIG. 4 is a view of a package containing cartridges spaced and cushioned by the device of FIGS. 1 to 3; and

FIG. 5 is a sectional view taken on line 5—5 of FIG. 4.

Referring now in greater detail to the various figures of the drawings wherein similar reference characters refer to similar parts, there is illustrated a packing member, generally designated 10, comprising a sheet 12 defined by a peripheral rim which includes two oppositely-disposed, relatively wide rim portions 14 and two oppositely-disposed, relatively narrow rim portions 16.

In the central area of the sheet, as defined by rim portions 14 and 16, are two packing sections 18 and 20 each of similar construction and separated by a central recess 22 extending across the sheet from one rim 14 to the other.

Each of the packing section 18 and 20 comprises a series of laterally arranged, elongated, arcuate pockets 24 extending from the corresponding rim 16 about halfway toward the recess 22. These pockets are raised above the plane of the sheet and are spaced from each other by ribs 26. These ribs 26 extend a certain distance toward recess 22 to a line 28. At this line 28, the ribs incline both inwardly and downwardly, as indicated at 30, to join a narrower, lower rib 32. The rib 32 extends to the recess 22 where it is defined by a steep end wall 34. The adjacent ribs 32 defined, between them, pockets 36 which are wider and lower than pockets 24, depending to the plane of the sheet, and which are joined thereto by downwardly and outwardly extending connecting portions 38 provided between the rib portions 30.

The pockets 36 and ribs 32 of each of the sections 18 and 20 are aligned with each other (as best shown in FIG. 1), and a fold line 40 is provided along the center line of the recess 22. By this construction, the pack may be folded down and around, along the fold line 40, so that the respective ribs and pockets mate with each

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other while extending in opposite directions (as shown in FIG. 4). When so folded, the single pack provides a central spacing means between two layers of cartridges, indicated at 42 in FIGS. 4 and 5.

When the cartridges 42 are in position in their respective layers, the larger diameter casing 44 of each cartridge is positioned in the corresponding pocket 36 while the smaller diameter projectile 46 is positioned in the corresponding pocket 24. The neck 48 of the casing 44 is accommodated by the intermediate pocket portion 38.

The packing member is also provided with four spacing tabs 50, one tab 50 being provided at each end of each relatively wide rim portion 14 so that a tab is provided at each corner of the pack.

When packed in the above manner within a carton 52, of chipboard or the like, the tabs 50 fold into the vertical position, as shown in FIG. 4, whereby they act both as additional lateral cushioning elements and as means for centering the pack in the carton. In this way, the individual cartridges are securely packed and cushioned against contact with one another while, at the same time, a minimum amount of space is occupied by the cushioning material. In addition, the pack 10, which, in itself, forms the complete cushioning element, is easily stored by keeping it in the flat, or open position, as in FIG. 1, and stacking one on top of another. The use of this type of pack eliminates the expense and trouble of having to combine various different packing materials such as spacers, excelsior, straw, layer-forming partitions, etc., in order to pack the cartridges; and, furthermore, eliminates the mess and trouble of removing individual cartridges from such former type of packs.

Obviously many modifications and variations of the present invention are possible in the light of the above teachings. It is, therefore, to be understood that within the scope of the appended claims the invention may be practiced otherwise than as specifically described.

What is claimed is:

1. A package comprising a container, at least two layers of cartridges in said container each cartridge comprising a relatively large diameter casing and a relatively small diameter projectile, and a spacing and cushioning means between each cartridge, said spacing and cushioning means comprising a substantially resilient sheet having two sections overfolded on themselves along a central recess extending across said sheet to form upper and lower pockets and spacing ribs, said pockets comprising two aligned portions, one of which is of relatively small diameter to snugly embrace the projectile and the other of which is of relatively large diameter to snugly embrace the casing, said relatively large diameter portion being positioned adjacent said central recess and said spacing ribs acting to space the cartridges from other cartridges both in the same and adjacent layers.

2. The package of claim 1 wherein each resilient sheet is provided with hinged tabs at the corners thereof, said tabs being folded into vertical positions wherein they contact the corresponding walls of the container.

3. The package of claim 1 wherein said substantially resilient sheet is constructed of molded paper pulp.

4. A pack for cartridges comprising a substantially resilient sheet, a pair of oppositely disposed sections on said sheet, said sections being separated by a central recess extending across said sheet and each section comprising a series of elongated open pocket formations laterally spaced from each other by generally parallel elongated rib formations, each of said pocket formations including a relatively deep portion and a more shallow portion longitudinally aligned with each other, the relatively deep portion being positioned adjacent said central recess and said central recess including a fold line

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positioned for folding said sections back upon each other with the respective pockets thereof opening away from one another.

5. The pack of claim 4 wherein said relatively deep portion is positioned in a lower plane relative to the surface of said sheet than said more shallow portion.

6. The pack of claim 4 wherein a spacing tab is flexibly connected to each corner of the sheet.

7. The pack of claim 4 wherein said sheet is constructed of molded paper pulp.

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