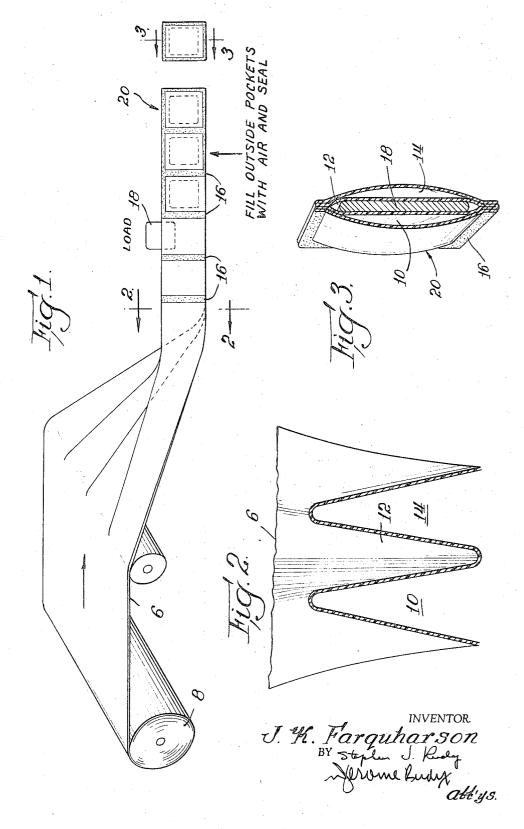
AIR CUSHIONED PACKETS

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1

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AIR CUSHIONED PACKETS

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This invention relates to a packet which is formed  $_{10}$  with air pockets providing a protective buffer for an item enclosed in the packet, and to the method of forming, loading and sealing such a packet.

It is common practice to use foam rubber, or equivalent, as a shock resistance in the formation of a package 15 for a sensitive, or easily broken item. While such type of packing is perfectly satisfactory in many cases, the cost factor, i.e., for raw material and package formation, is often quite high and economically unattractive.

The packet of the invention, which is made from a 20 heat sealable film, is characterized by its low cost, since the buffer means thereof is formed of closed air pockets which take the place, and serve the same function, as foam rubber in the conventional type package mentioned above. The packet of the invention also has low formation cost since it can be made and filled on automatic packing machinery requiring only minor alterations.

The main object of this invention is to provide a shock resistance packet for a sensitive, or frangible article.

Another object is to provide a low cost shock resistant 30 packet which eliminates the need for rigid buffer material, such as foam rubber.

Still another object of the invention is to provide a low cost shock resistant packet, which may be formed on standardized packing machinery which requires only 35 minor alteration.

These and further objects and features of the invention will become more apparent from the following description and accompanying drawing wherein:

FIG. 1 is a perspective-like view illustrating in rather 40 schematic manner the formation of packets embodying the principle of the invention;

FIG. 2 is an enlarged section view as seen from line 2-2 in FIG. 1; and

FIG. 3 is an enlarged section view generally as seen 45 from line 3-3 in FIG. 1.

A sheet of heat sealable plastic film 6 is taken from a roll 8, and creased, or folded in the longitudinal direction to form an M-shaped configuration in cross-section as in FIG. 2, having recesses 10, 12 and 14. The strip of gussetted material thus formed may be rolled and sent to a customer for item loading and final sealing operation. In the alternative, the formed material may be passed on to the next step of operation, as will now be described.

A Simplex Pouch machine may be easily modified for 55 formation of the packet of the invention. Transverse heat seals 16 are formed in uniform spaced relation along the length of the molded film, to provide three adjacent pockets, the two outer ones formed of recesses 10 and 14 being open along one longitudinal edge, while the 60 inner pocket formed of recess 12, is open along the op-

2

posite longitudinal edge. An item 18 to be enclosed, is then inserted in the inner pocket, and all pockets are sealed along their open edges by heat sealing means (not shown) to form individual packets 20. The outer pockets formed from recesses 10 and 14, are inflated with a medium, such as air, before final sealing. The air filled pockets on each side of the inner pocket, thus provide a buffer for the protection of the item 18 therein. After packing and sealing, the strip of packets 20 may be severed at the midportion of each transverse heat seal line 16, or may be left in connected predetermined lengths as desired.

The plastic film 6 may be made of any heat sealable plastic film, such as polyethylene, etc., or a two side poly coated cellophane, or other flexible material, transparent or otherwise.

It will be seen from the foregoing that the embodiment of the invention will satisfy all of the objectives set forth hereinbefore.

The foregoing description has been given in detail without thought of limitation since the inventive principles involved are capable of assuming other forms without departing from the spirit of the invention or the scope of the following claims.

What is claimed is:

1. A method of making a shock resistant packet blank formed of heat sealable flexible material and having an inner pocket and outer pockets on each side of said inner pocket, said outer pockets being inflatable with a pressurized medium to provide shock resistance to said inner pocket, comprising the steps of folding a singular sheet of heat sealable flexible material into an M-shaped cross-sectional configuration, and heat sealing said flexible material transversely across said M-shaped configuration to form three juxtaposed pockets having alternate open ends, inflating the two outer pockets with a pressurized medium and sealing the open ends of said outer pockets to form said shock resistant packet blank.

2. A method of making a shock resistant packet formed of heat sealable flexible material and having an inner pocket and outer pockets on each side of said inner pocket, said outer pockets being inflated with a pressurized medium to provide shock resistance to said inner pocket, comprising the steps of folding a singular sheet of heat sealable flexible material into an M-shaped cross-sectional configuration, heat sealing said flexible material transversely across said M-shaped configuration to form three juxtaposed pockets having alternate open ends, placing an item to be packaged in the inner pocket, inflating the two outer pockets with a pressurized medium and sealing the open ends of the three pockets to form said shock resistant packet.

## References Cited

## UNITED STATES PATENTS

2,565,444 8/1951 Waters \_\_\_\_\_ 53—28 X 3,038,593 6/1962 Root et al.

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