Jan. 30, 1934. W. D. COIL ET AL 1,945,024

PACKING MATERIAL FOR FRAGILE ARTICLES

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FIG 1

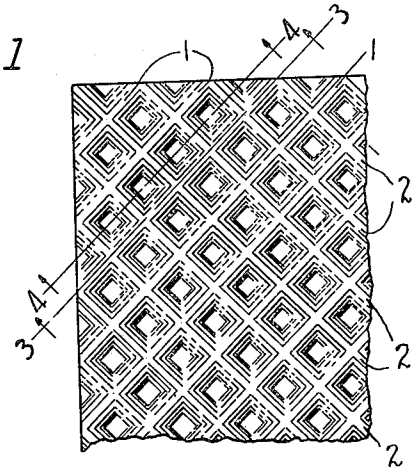

FIG 3

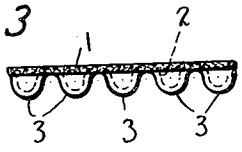

FIG 4

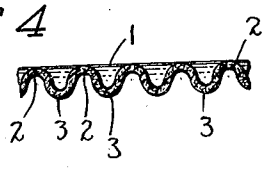

FIG 2

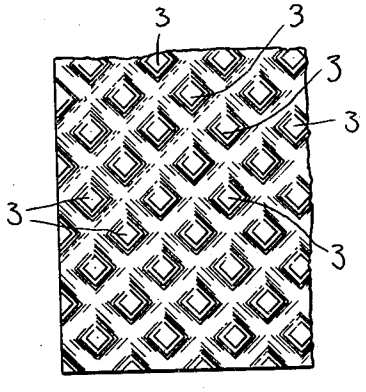

FIG 5

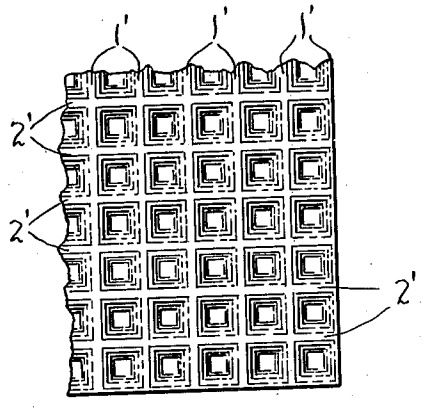

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FIG 6

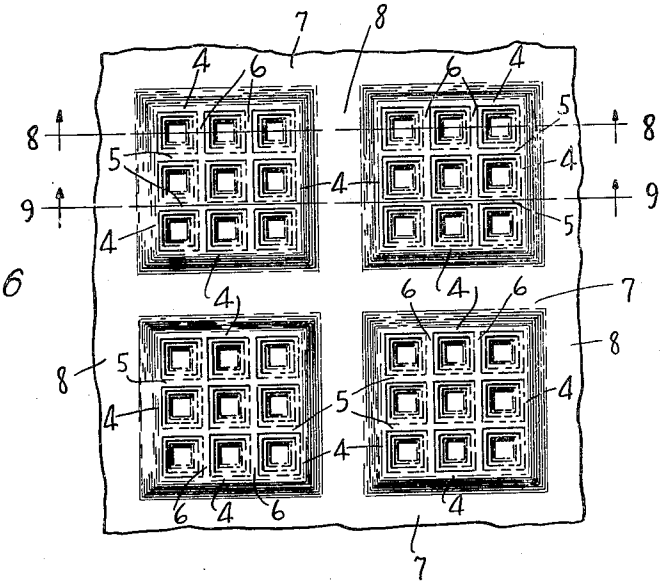


FIG 8

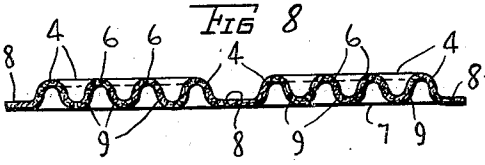


FIG 9

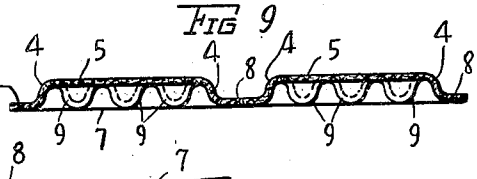
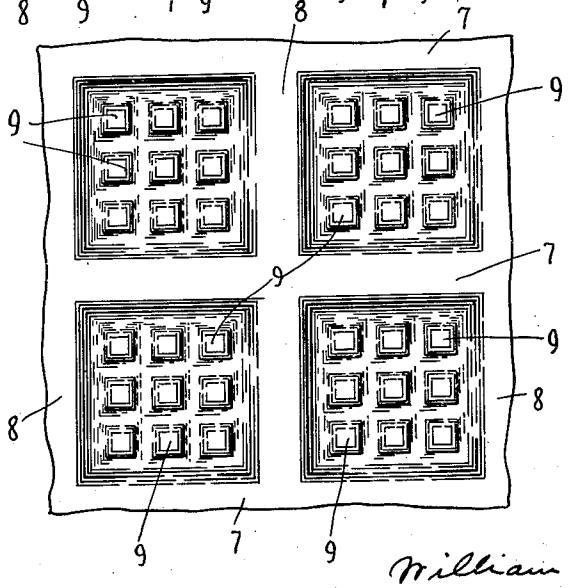


FIG 7



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UNITED STATES PATENT OFFICE

1,945,024

PACKING MATERIAL FOR FRAGILE ARTICLES

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Application April 21, 1930. Serial No. 445,909

3 Claims. (Cl. 154—54)

This invention relates to packing material for fragile articles, it more particularly relating to material which is in the form of a sheet or board.

An object of the invention is to provide a packing sheet or board which can be economically and effectively made of pulp material such as paper pulp.

A further object of the invention is to provide a packing sheet or board so molded from pulp that it will not only possess the necessary stiffness but will also be of a resilient or springy character so as to more effectively protect the fragile articles packed therewith.

Other objects of our invention will appear from the accompanying description and statement of advantages.

In the accompanying drawings:

Fig. 1 is a view of one side of a portion of one form of a packing sheet or board constructed in accordance with our invention.

Fig. 2 is a view of a portion of the opposite side of the same.

Fig. 3 is a section on the line 3—3 of Fig. 1.

Fig. 4 is a section on the line 4—4 of Fig. 1.

Fig. 5 is a top plan of a slightly modified form.

Fig. 6 is a view of one side of a portion of another modified form of packing board.

Fig. 7 is a view of a portion of the opposite side.

Fig. 8 is a section on the line 8—8 of Fig. 6.

Fig. 9 is a section on the line 9—9 of Fig. 6.

Referring first to Figs. 1 to 4 inclusive there is shown a packing board molded from pulp, preferably paper pulp, which is provided with protuberances on each side thereof to lend thereto the necessary stiffness. The board is so molded that the protuberances on one side thereof appear as two series of diagonally-extending parallel ribs which intersect each other at right angles, one series of these ribs being represented at 1 and the other series at 2. On the opposite side of the board these protuberances are in the form of equally-spaced projections 3.

In Fig. 5 the same form of protuberance is shown with the exception that the ribs extend at right-angles to the sides of the board instead of diagonally, 1' representing one series of ribs and 2' the other series.

In the modified form of board shown in Figs. 6 to 9 inclusive, the protuberances on one side of the board are in the form of a series of ribs 4 placed in the shape of squares, the sides of each square being connected by two series of parallel ribs 5 and 6 which intersect each other at right angles. The protuberances on the opposite side of the board will be in the form of two series of parallel and intersecting ribs 7 and 8 which separate the squares and also a series of protuberances 9.

These sheets of board are molded on any suitable molding machine, such for instance as the one shown and described in patent to Pruyn and De Reamer No. 1,211,229, with the mold surfaces altered to give the desired conformation to the finished product.

A packing board or sheet thus formed not only possesses the required stiffness for the purpose but also is of a resilient character which acts to more fully protect any fragile articles packed therewith, the ribs and projections giving under pressure but springing back to their original character when pressure is removed so as to cause the packing to more closely hug the articles packed therewith. This latter characteristic is due to the pulp material from which the boards are formed, the pulp having an inherent resiliency or tendency to give under pressure but spring back to its original form as the pressure is relieved and thus acts as a cushion instead of presenting a surface which either is unyielding under normal pressure or which is broken or crushed under an abnormal pressure, as is the case with the well known form of corrugated packing board.

Having thus described our invention, we claim:

1. A packing board formed of moulded pulp, said board having a plurality of spaced resilient ribs on one side thereof and a plurality of spaced resilient projections on the opposite side thereof, said ribs being formed in two series with the ribs of one series extending at an angle to the ribs of the other series.

2. A packing board formed of moulded pulp, such board having a plurality of resilient ribs on at least one side thereof, said ribs being formed in two series with the ribs of one series extending at an angle to the ribs of the other series.

3. A packing board formed of moulded pulp, said board having a plurality of spaced resilient ribs on one side thereof, certain, of said ribs crossing the other ribs at an angle, and a plurality of spaced resilient projections on the opposite side of said board formed from the material lying between said ribs.

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