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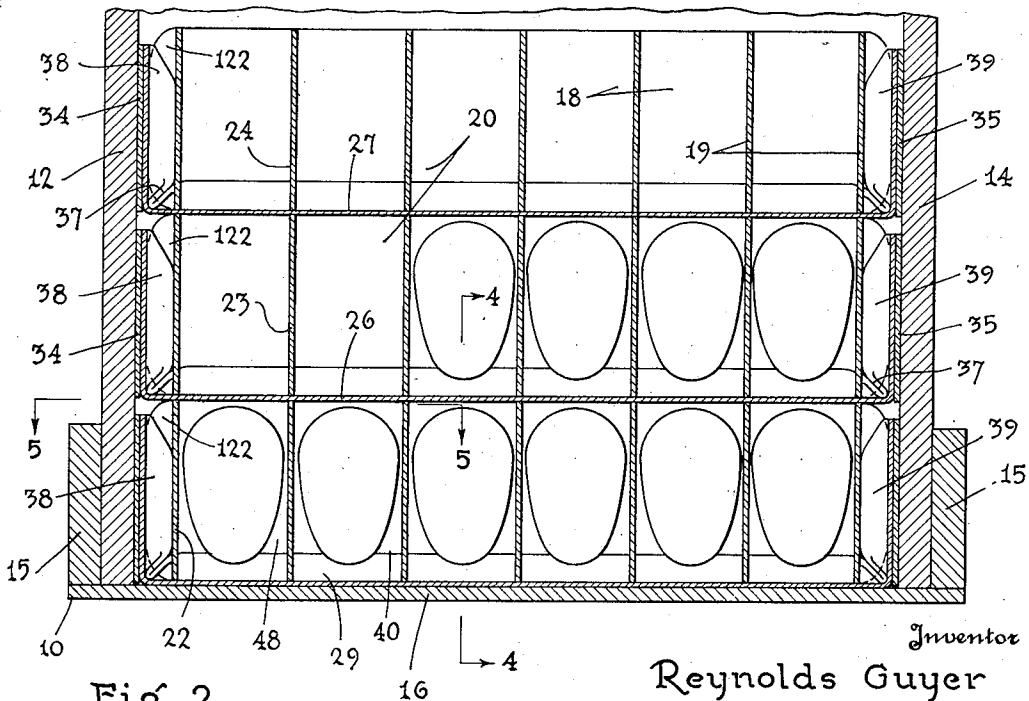
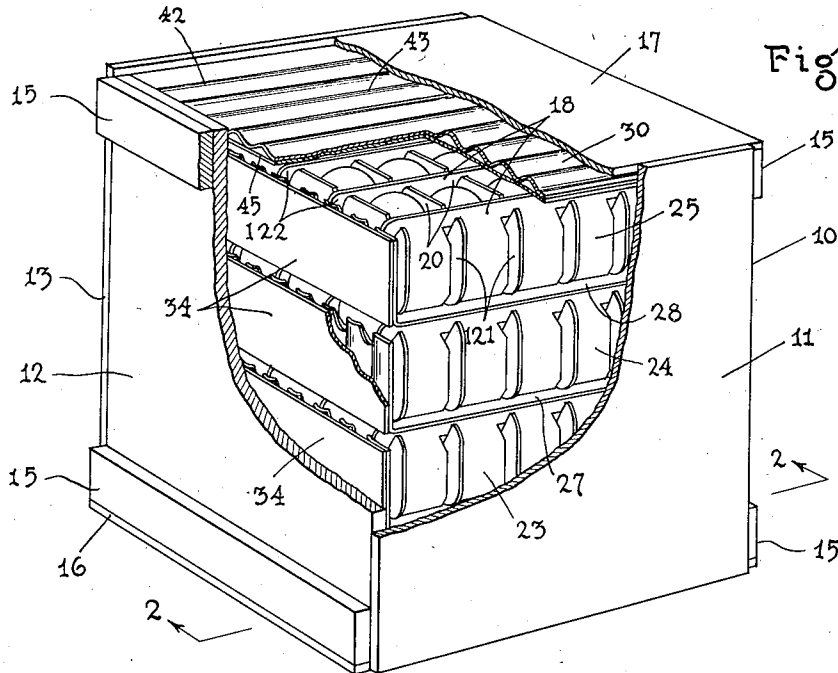
R. GUYER

2,018,954

EGG CASE CUSHION PAD

Filed Nov. 17, 1932

2 Sheets-Sheet 1



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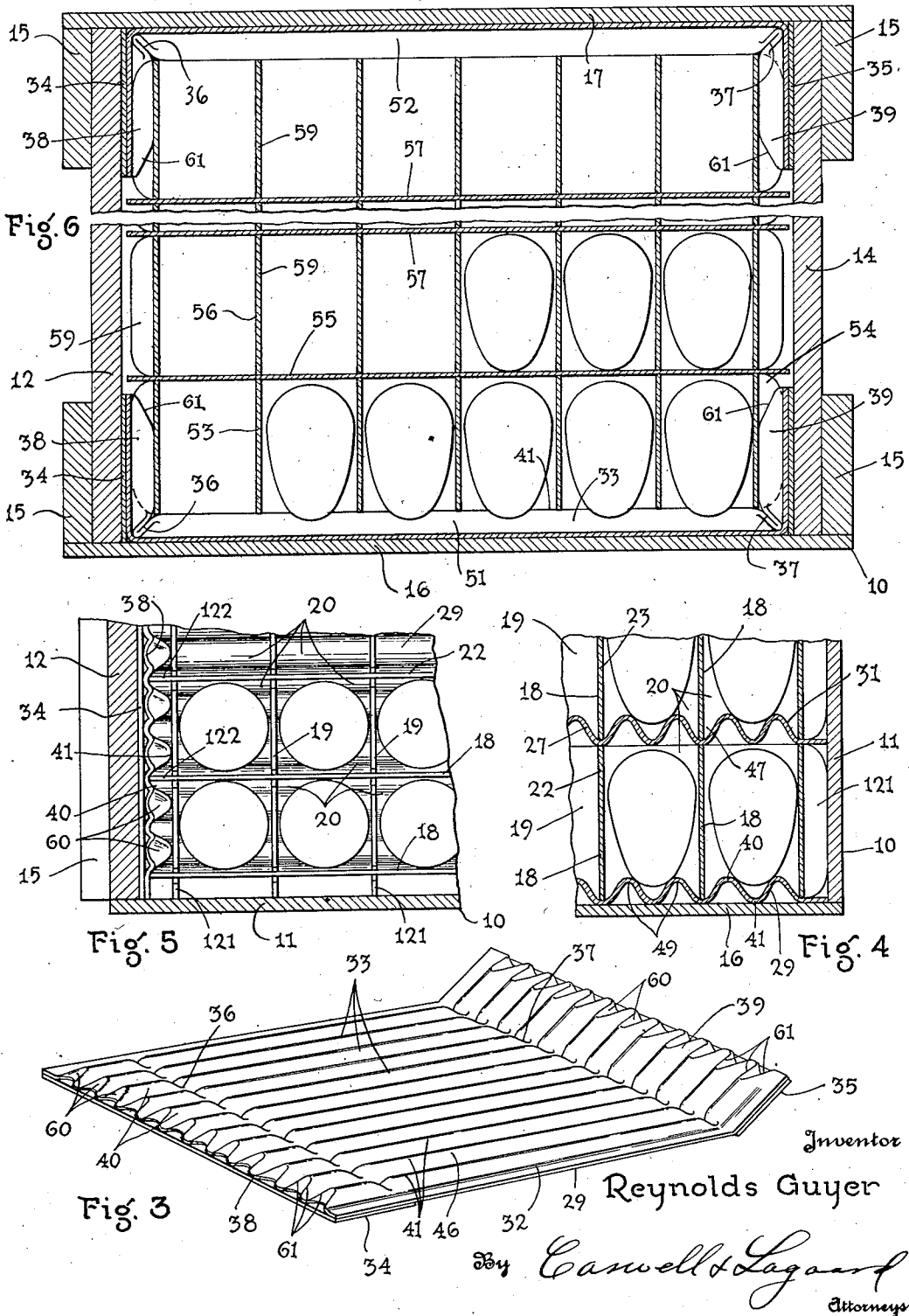
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UNITED STATES PATENT OFFICE

2,018,954

EGG CASE CUSHION PAD

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13 Claims. (Cl. 217—26)

My invention relates to cushion pads for egg cases and has for its object to provide a cushion pad which may be used to effectively reduce the breakage of eggs in an egg case.

Another object of the invention resides in providing a cushion pad for an egg case by means of which eggs contained within fillers are cushioned against movement in an endwise direction with respect to the case.

A still further object of the invention resides in providing a cushion pad which may be used also as an egg flat.

An object of the invention resides in providing a cushion pad constructed with cushion members at the ends thereof for engagement with the ends of the fillers of an egg case.

Another object of the invention resides in forming the cushion pad with a body portion and in providing at the ends of the body portion flanges adapted to lie between the ends of the fillers and the case.

A still further object of the invention resides in constructing the cushion pad from a sheet of paper stock having corrugations exposed on both sides of the sheet, and in further providing corrugated flanges extending outwardly from the sheet and formed from the stock of the sheet.

Another object of the invention resides in providing ribbons or similar structure attached to the flanges of the pad for retaining the pitch of the corrugations of the body portion of the sheet.

A feature of the invention resides in crushing the sheet along lines spaced from the ends of the sheet to provide end portions from which the flanges may be formed.

Another object of the invention resides in attaching the ribbon to the corrugations of the flanges.

An object of the invention resides in turning in the ends of the corrugations of the flanges to permit of more readily inserting the flanges into the case and of placing the fillers between the flanges.

Other objects of the invention reside in the novel combination and arrangement of parts and in the details of construction hereinafter illustrated and/or described.

In the drawings:

Fig. 1 is a perspective view of an egg case with portions thereof broken away and illustrating an embodiment of my invention applied thereto.

Fig. 2 is a cross sectional view taken on line 2—2 of Fig. 1.

Fig. 3 is a perspective view of one of the cushion pads removed from the egg case.

Fig. 4 is a fragmentary elevational sectional view taken on line 4—4 of Fig. 2.

Fig. 5 is a plan sectional view taken on line 5—5 of Fig. 2.

Fig. 6 is a view similar to Fig. 2 showing the invention used merely as a cushion pad.

For the purpose of illustrating my invention, I have shown in Fig. 1 an ordinary egg case or crate which is indicated in its entirety at 10. This egg case comprises side walls 11 and 13 and ends walls 12 and 14, all of which may be constructed of wood and which are nailed together in the usual manner. The end walls 12 and 14 have attached to them cleats 15 by means of which the case is stiffened. A bottom 16 and a top 17 are attached to the end walls 12 and 14 and to the various cleats 15 and enclose the egg fillers and the eggs contained within the case.

My improved egg cushioning pad may be used solely as a cushioning pad both for the top and bottom of the case or the same may be used both as a cushioning pad and as an egg flat, between the various fillers in the case. In Figs. 1 to 5 the latter construction has been illustrated which will now be described in detail.

With the form of the invention shown in Fig. 1, a special type of filler is required, a number of such fillers being employed which are indicated at 22, 23, 24 and 25. These fillers consist of interlocking partitions 18 and 19 which are so arranged as to form egg cells 20 in which the eggs may be placed. The partitions 18 and 19 are constructed with projections 121 and 122 which extend outwardly beyond the outer intersecting partition. In ordinary egg cases these projections abut against the end walls 12 and 14 of the case. Between the various fillers are placed egg flats 26, 27 and 28 which separate the layers of eggs and which protect the same and prevent breakage thereof through direct contact. At the lower portion of the case is provided a cushion pad 29 and at the upper portion of the case is provided another cushion pad 30. The various egg flats are constructed of corrugated material as best shown in Fig. 3 and the various fillers 22, 23, 24 and 25 are notched as designated at 31 to fit into the corrugations of the egg flats.

All of the egg flats 26, 27 and 28 and the cushion pad 29 are constructed in the same manner and only the cushion pad 29 which is shown in detail in Fig. 6 will be described. This cushion pad is constructed from a sheet of paper stock indicated at 32 which is of a width somewhat greater than the length of the case 10. This sheet is corrugated to provide corrugations 33

which extend crosswise of the sheet and lengthwise of the case and which are of suitable depth to give the desired cushioning effect to the eggs resting thereon. The corrugations 33 provide valleys 40 in the upper surface of the sheet which alternate with adjoining ridges 41. In the construction of the cushioning pad, ribbons 34 and 35 are glued to the ridges 41 of the various corrugations 33 at the extreme ends thereof and function to retain the pitch of the corrugations throughout the extent thereof and to maintain the sheet in proper form. The ribbons 34 and 35 are spaced from one another leaving the intermediate portions of the sheet with the corrugations exposed on both sides thereof.

In the construction of the cushion pad the corrugated sheet after the ribbons 34 and 35 have been attached thereto is crushed along two parallel lines 36 and 37 which form flanges 38 and 39 at the end of the sheet adapted to be bent upwardly from the sheet as indicated in Fig. 3 and as disclosed in Fig. 2, and to further provide a body portion 46 intermediate the flanges 38 and 39. The ribbons 34 and 35 are preferably co-extensive with the height of the flanges 38 and 39 and extend above the lowermost surface of the corrugated sheet when said flanges are folded into operating position. The pitch of the corrugations 33 is such that certain of the valleys 40 between the corrugations falls opposite the projections 22 of the partitions 18 when the flanges are folded outwardly and in which said projections are received. When the parts are assembled the said projections are fully disposed within said valleys and the ridges 41 of the corrugations contact with the outer of the partitions 19. These corrugations hence form cushions for the ends of the fillers and prevent injury to the eggs through endwise movement of the fillers relative to the case.

As previously stated egg flats 26, 27 and 28 are identical with the cushion pad 29 and are disposed between the various fillers 22, 23, 24 and 25 and between the bottom filler 22 and the bottom 16 of the case. At the upper portion of the case a plain cushion pad 42 is employed which is constructed from a corrugated sheet 43 having a flat back 45 secured to the same. This cushion pad is coextensive with the area of the case and is not provided with flanges disposed along the ends of the case, the same as the cushion pad 29. Such flanges are not necessary with this cushioning pad as the flanges of the egg flat 28 extend up along the ends of the uppermost filler 25.

For the purpose of more readily guiding the cushion pads into the case and especially when inverted as for the upper flat and for guiding the fillers into position between the corrugations of the flanges, the following construction is employed. At the end of each corrugation 33 on the flanges, the extreme end 60 of the ridges 41 thereof are bent back toward the ribbons 34 and 35 and tucked into the complementary valley on the opposite side of the sheet. This forms inclined edges 61 on the corrugations which converge toward the said ribbons. Such edges serve to guide the flanges into position when the upper cushion pad is inserted into the case and also serve to guide the fillers into position between the flanges.

The use of the invention is as follows. The cushion pads and egg flats are constructed planiform, the two flanges 38 and 39 lying in the plane of the body portion 46 of the egg flat. The

stock, however, is crushed along the lines 36 and 37 as previously explained at the locality of the inner edges of the two ribbons 34 and 35 and the inclined edge 61 previously formed. When desired for use the two flanges 38 and 39 are bent upwardly along the lines 36 and 37. In Fig. 3 flange 39 has been illustrated as partly bent. When the two flanges are at right angles to the body portion, the flats and cushion pads may be inserted in the case. The cushion pad 29 is first placed upon the bottom of the case with flanges 38 and 39 thereof engaging the end walls 12 and 14 of the case. The egg case filler 22 is next applied, the partitions 19 thereof being arranged to extend crosswise of the corrugations and so that the notches 31 therein intermesh with the corrugations 33 of the sheet 32 from which the body portion 46 of the cushion pad is constructed. By proper selection of the pitch of the corrugations the partitions 18 extend down into the valleys of the corrugations as indicated at 47 in Fig. 4. Beveled edges 61 assist in guiding the filler in position. When the eggs are placed in the cells 20 the tips thereof rest upon the raised portions or ridges 49 of the corrugations 33, being spaced from the bottom of the case and being thereby cushioned and protected from injury. After the various egg cells 20 have been filled with eggs, the egg flat 26 is next placed upon the filler 22 with its flanges 38 and 39 engaging the end walls 12 and 14 of the case. Filler 23 is next applied in exactly the same manner as filler 22 and the egg cells or compartments 20 therein filled with eggs. The remaining egg flats and fillers are then successively installed in the case and when the case is completed, cushion pad 43 is applied and the cover 17 secured to the case through cleats 15 thereof. It will be noted that with this construction a cushion member is provided at the ends of each layer of eggs which serves to prevent injury to the eggs through endwise movement thereof. At the same time a cushion is provided between each layer of eggs and between the lowermost layer and the bottom of the case.

If desired, my invention may be used solely as a cushion pad as illustrated in Fig. 6. In such case two cushion pads 51 and 52 are employed which are placed in the top and bottom of the case. The cushion pad 51 is applied in exactly the same manner as the cushion pad 29 and is constructed identically the same as this cushion pad. With this form of the invention, standard egg case fillers such as indicated at 53 are employed which are constructed of the usual height and without the notches in either of the partition walls. These egg case fillers rest directly upon the ridges 41 of the corrugations 33 of the cushion pad instead of fitting down into the same. The ends 54 of the partitions of these fillers, however, extend into the valleys 40 of the corrugations of the flanges 38 and 39, the same as in the other form of the invention. After the egg cells within the filler 43 have been filled with eggs, a planiform sheet of material 55 or an egg flat of any other type is laid upon the fillers 53. Thereafter succeeding fillers 56 and other egg flats 57 are successively placed upon one another until the entire case is filled. The last cushion pad 52 is then applied which is accomplished by inverting the same and by inserting the flanges 38 and 39 thereof downwardly along the end walls 12 and 14 of the case with the ends 54 of the uppermost filler 59 received within the valleys thereof. Inclined edges 61 assist in guiding

the cushion pad in place. By means of this construction the case is cushioned at the top and bottom to prevent injury to the eggs and a certain amount of endwise cushioning is also procured which further assists in protecting the eggs within the case.

My invention is highly advantageous in that the eggs contained within the ordinary egg case are more fully protected and cushioned than with other types of cushion pads. The cushion pad can be used either as a cushion pad or as an egg flat so that but a single type of construction is needed for either use. With my improved invention cushioning in an endwise direction is procured which is particularly advantageous where eggs are shipped in railway cars. The egg fillers are easily applied to the flats or cushioning pads and are firmly held in position thereby. The cushion pads can be constructed from a relatively small amount of material and from a fairly inexpensive paper stock.

Changes in the specific form of my invention, as herein disclosed, may be made within the scope of what is claimed without departing from the spirit of my invention.

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

1. A cushion pad comprising a sheet having corrugations therein extending throughout the entire area of the sheet and exposed on both sides of the sheet, said sheet being crushed along two parallel lines and across the corrugations to form a body portion therebetween and marginal portions adjoining said body portion, and means secured to said marginal portions outwardly of the crushed portions for retaining the pitch of the corrugations in the body portion.

2. A cushion pad comprising a sheet having corrugations therein extending throughout the entire area of the sheet and exposed on both sides of the sheet, said sheet being bent up at its ends and crosswise of the corrugations to form upstanding flanges, and means on said flanges outwardly from the bent portions of the sheet for retaining the pitch of the corrugations of the sheet.

3. A cushion pad comprising a sheet having corrugations therein exposed on both sides of the sheet, flanges formed at the ends of the sheet and extending outwardly therefrom, and ribbons secured to said flanges.

4. A cushion pad comprising a sheet having corrugations therein exposed on both sides of the sheet, said sheet being crushed along two parallel lines to form a body portion therebetween and marginal portions adjoining said body portion, and ribbons secured to the corrugations of said marginal portions.

5. A cushion pad comprising a sheet having corrugations therein exposed on both sides of the sheet, said sheet being bent up at its ends and crosswise of the corrugations to form upstanding flanges, and ribbons secured to the corrugations of said flanges.

6. In combination with an egg case provided with a filler constructed with intersecting par-

titions having protruding ends, a member on which said filler rests and cushion means secured to the ends of said member and lying between said filler and case, said cushion means being formed with grooves for the reception of the protruding ends of the partitions of said filler and along which the ends of the partitions extend.

7. In combination with an egg case provided with a filler constructed with intersecting partitions having protruding ends, a horizontal member on which said filler rests and cushion means secured to the ends of said member and lying between the end of said filler and a vertical wall of said case, said cushion means being corrugated to provide grooves for the reception of the protruding ends of the partitions of said filler.

8. In combination with an egg case provided with a filler constructed with intersecting partitions having protruding ends, a member on which said filler rests, said member being formed with corrugations extending across the same in one direction, said member being scored along lines spaced from the ends of the same and extending across said corrugations to provide flanges at the ends of the member extending upwardly therefrom, the corrugations in the flanges receiving the ends of some of the partitions of the filler.

9. In a device of the class described, a sheet having corrugations therein, a backing secured to one side of the sheet at the ends of the corrugations, the extreme ends of the corrugations being folded inwardly and against said backing to conceal the edges thereof.

10. In a device of the class described, a sheet having corrugations therein, a backing secured to one side of the sheet at the ends of the corrugations, the extreme ends of the corrugations being tucked into the openings formed between the corrugations and backing to conceal the edges of the ends of the corrugations.

11. In combination with an egg case provided with a filler constructed with intersecting partitions having protruding ends, cushion means secured to the ends of said member and lying between said filler and case, said cushion means having vertically extending corrugations providing grooves for the reception of the protruding ends of the partitions of said filler.

12. A cushion pad comprising a sheet having corrugations therein extending throughout the entire area of the sheet, and exposed on both sides of the sheet, said sheet being bent up inwardly of its ends and crosswise of the corrugations to form upstanding flanges, and means on said flanges engaging the unbent portions of said corrugations for retaining the pitch of the corrugations.

13. A cushion pad comprising a sheet having corrugations therein extending throughout the entire area of the sheet, and exposed on both sides of the sheet, said sheet being bent up inwardly of its ends and crosswise of the corrugations to form upstanding flanges, and means engaging said flanges intermediate the bends of said corrugations and the ends thereof for retaining the pitch of the corrugations of the sheet.

REYNOLDS GUYER.