

No. 626,240.

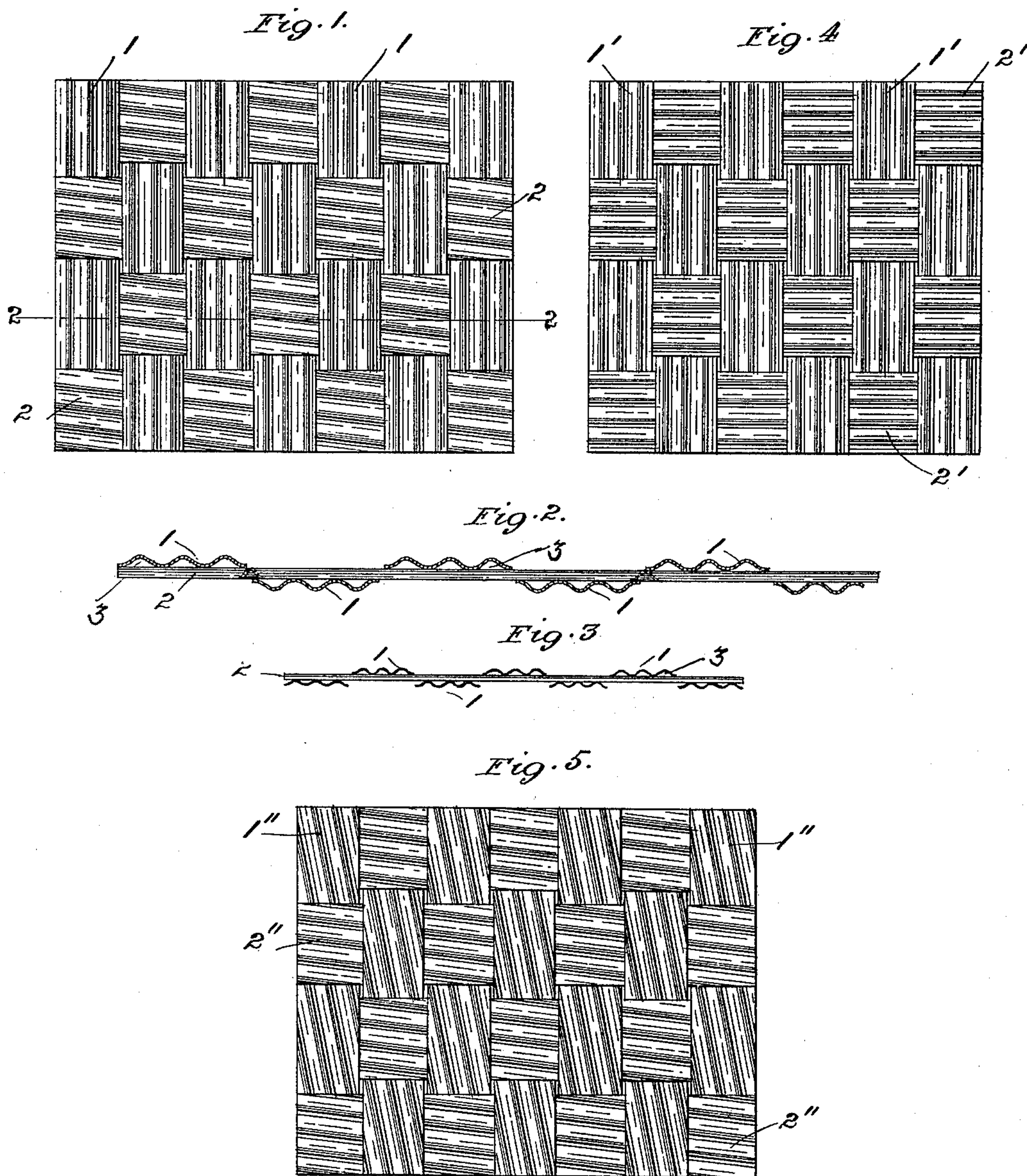
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H. J. MARK.

CUSHIONING PAD FOR PACKING CASES.

(Application filed Mar. 20, 1899.)

(No Model.)



WITNESSES  
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# UNITED STATES PATENT OFFICE.

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## CUSHIONING-PAD FOR PACKING-CASES.

SPECIFICATION forming part of Letters Patent No. 626,240, dated June 6, 1899.

Application filed March 20, 1899. Serial No. 709,829. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY J. MARK, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Cushioning-Pads for Packing-Cases, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in cushioning-pads for the bottoms of packing-cases; and it consists in the novel arrangement and combination of parts more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a plan view of the pad. Fig. 2 is an enlarged section on line 2 2 of Fig. 1, partly broken away. Fig. 3 is an end view of the pad. Fig. 4 is a plan of a modified form of pad, and Fig. 5 is a plan of still another modification.

The present invention relates to cushioning-pads employed for the bottoms of packing-cases in which bottles or other glassware is packed.

The object of my present improvement is to construct a pad which will be thoroughly elastic and yet at the same time possess sufficient resistance to the crushing tendency of the weight generally resting thereon.

My present improvement finds special application in medicine-cases, champagne-cases, wine-cases generally, and cases for grocers' sundries, where it is absolutely necessary to have an elastic pad to properly cushion the bottles, and a pad which will combine stiffness with elasticity has long been a desideratum among packers.

The present pad is a composite one, being made up of a number of interwoven or interlaced corrugated elastic strips, preferably made of wood; but any other material could answer substantially the same purpose, but to perhaps a somewhat inferior degree.

The pad in detail may be described as follows:

Referring particularly to Figs. 1, 2, and 3 of the drawings, 1 represents a series of longitudinally-corrugated wooden strips, the same being interlaced or crossed (preferably) at right angles thereto by a second series of corrugated strips 2, the corrugations of the

latter running at an angle to the general length of the strips. In this manner there is formed a woven pad of interlacing corrugated strips brought into contact with one another along both faces, the strips contacting with one another along the bases of the corrugations, thereby leaving air-spaces 3 between the lines of contact for purpose of ventilation and to admit of the free play for the walls of the pad thus formed under the variable loads to which the same are subjected. It was stated above that the corrugations of the strips 2 were inclined to the general length of the strips. By this arrangement there is insured a longer line of contact between the adjacent surfaces or bases of the corrugations of any two strips. Were the corrugations to run parallel to their respective strips 1 and 2, the lines of contact would be reduced to a minimum, as is obvious from the modification illustrated in Fig. 4, where the corrugations of the strips 1' and 2' intersect each other at right angles. On the other hand, the lines of contact can be increased to a maximum by causing the corrugations of the respective strips to run at an angle to both strips, as is seen in the modification in Fig. 5, where 1'' and 2'' represent strips of this character. By increasing the length of the lines of contact as here specified the wall of each corrugation presents more surface of contact to the wall of its engaging corrugation without impairing the elasticity of the strip, and at the same time better distributing the load which the pad has to support.

Where the strips are made of wood, they may be cut from the block in the shape of corrugated veneer sheets or in the shape of plane sheets and subsequently corrugated by means of shaping-rollers; but the original corrugated sheets are preferable, as they are the more elastic. The sheets may be cut or rolled with the corrugations running at any angle to the grain, but preferably with the grain, for otherwise the life of the strip is materially reduced.

While I have specifically referred to and described wooden strips, it is to be understood that I do not limit myself thereto, for it is within the spirit of my invention to substitute therefor corrugated paper, papier-mâché, composition-strips, tule grass, straw,



or, in fact, any material, natural or artificial, which could be substituted for wood. It is to be understood that the present invention does not contemplate the superposition of one corrugated sheet upon another, but the interweaving or interlacing of a series of corrugated strips. By the latter construction the edges of the pad always have three thicknesses of strips, as seen in end view in Fig. 3.

10 It is of course obvious that the deeper the corrugations of the respective strips the more effective will be the cushioning quality of the pad, the elasticity thereof being increased with any increase in the depth of the corrugations. While I have described both sets

15 of strips as corrugated, it is obvious that it would still be within the spirit of my invention to have but one set corrugated, the intersecting set being plane.

20 Having described my invention, what I claim is—

1. A cushioning-pad for packing-cases, comprising a series of corrugated strips running in one direction, and a second series of strips intersecting the first series at an angle thereto, substantially as set forth.

25 2. A cushioning-pad for packing-cases, comprising a series of corrugated strips running in one direction, and a second series of corrugated strips intersecting the first series at an angle thereto, substantially as set forth.

3. A cushioning-pad for packing-cases, com-

prising a series of corrugated wooden strips running in one direction, and a second series of corrugated wooden strips intersecting the first series at an angle thereto, substantially as set forth. 35

4. A cushioning-pad for packing-cases, comprising a series of corrugated strips running in one direction, and a second series of corrugated strips intersecting the first at right angles thereto, substantially as set forth. 40

5. A cushioning-pad for packing-cases, comprising a series of corrugated strips having the corrugations running substantially parallel to the length of each strip, and a second series of intersecting corrugated strips, substantially as set forth. 45

6. A cushioning-pad, comprising a series of elastic, wooden, longitudinally-corrugated strips, and a second series of similar corrugated strips intersecting the first strips at right angles, the corrugations of the second series making an angle with the corrugations of the first series different from that which the intersecting strips make with one another, substantially as set forth. 55

In testimony whereof I affix my signature in presence of two witnesses.

HENRY J. MARK.

Witnesses:

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