

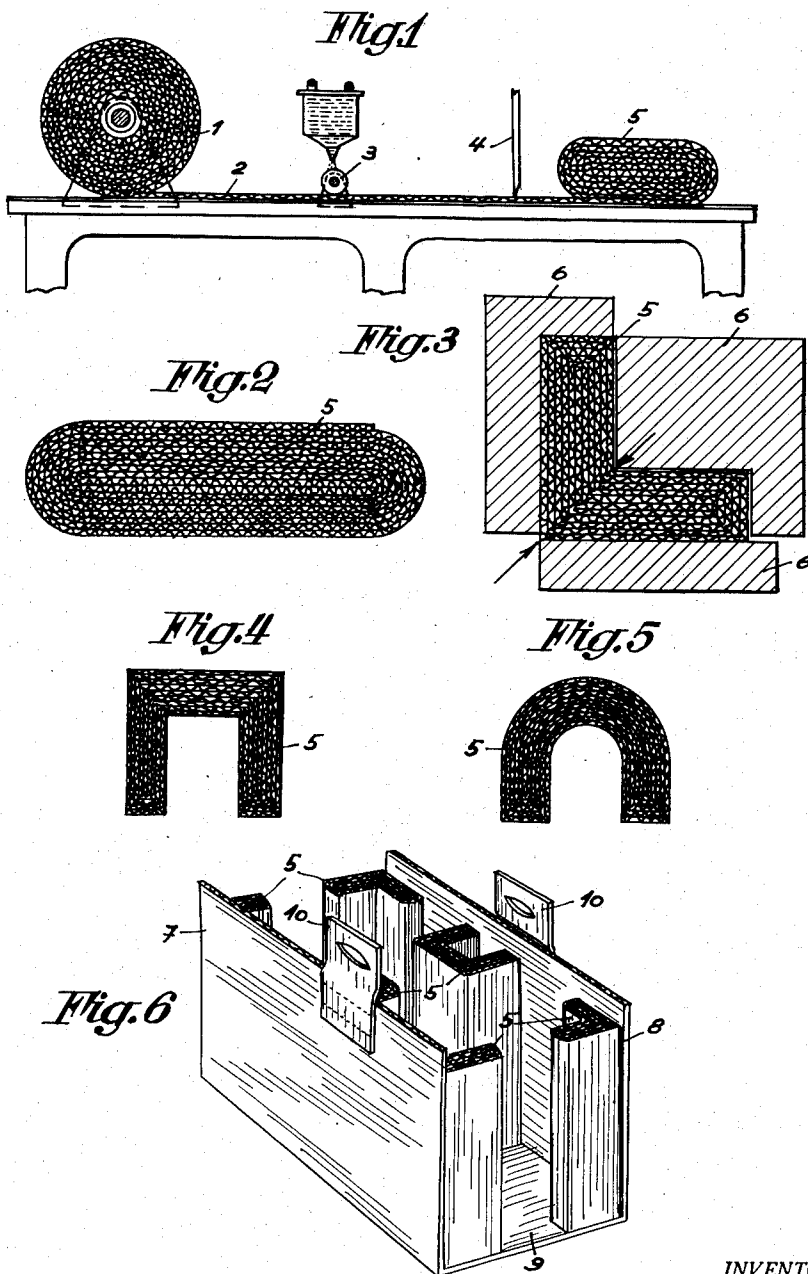
Nov. 20, 1951

P. TADINGER

2,575,898

PADDING FOR PACKINGS AND METHOD OF MANUFACTURING THE SAME

Filed May 24, 1949



INVENTOR.

P. Tadinger

BY

Glascot Downing & Seale
Attys.

UNITED STATES PATENT OFFICE

2,575,898

PADDING FOR PACKINGS AND METHOD OF
MANUFACTURING THE SAMEPaul Tadinger, Vienna, Austria, assignor to Oscar
Leopold Ladner, Vienna, AustriaApplication May 24, 1949, Serial No. 95,084
In Austria March 17, 1949

3 Claims. (Cl. 154-110)

1

This invention relates to a method of making resilient paddings or shock-absorbing cushions for packings of all kinds and to the cushion so made.

Therefore, the present invention has for an object to provide an economical method of making shock-absorbing cushions.

More particularly the invention has for an object to provide such a method utilizing a continuous strip or piece of corrugated cardboard or paper.

The invention consists in coating corrugated paper or corrugated cardboard with an adhesive material on the corrugations and immediately thereupon it is rolled into a body or loose roll of circular or elliptical cross section, and while the adhesive layer is still in a sticky or tacky condition the body is compressed in a press to the desired shape under the action of pressure and heat and maintained under heat and pressure until a solidification of the shaped padding is effected by the drying of the layer of adhesive.

The paddings produced in this manner by means of a continuous band or strip can be cut to the desired length or be produced from the beginning in the desired length.

The method according to the invention is hereinafter described with reference to Figures 1 to 3 of the accompanying drawings. Figures 4 and 5 show, by way of example, two other modifications of paddings produced by the method. Figure 6 shows a form of construction illustrating a completely assembled shock-absorbing insert ready for insertion in a box or carton.

In carrying out the method corrugated cardboard or paper 2 is unwound from a storage roll 1 of any desired size and fed along a path to an adhesive applying device 3. The adhesive is applied to the apices of the corrugations of the corrugated paper by means of a cylinder or other adhesive applying tool. Thereupon the corrugated paper coated with the adhesive is rolled into an elliptical shape with the corrugation lying either on the inside or on the outside and when a certain cross section of roll is obtained the strip 4 is cut by means of a cutting or severing device 4 to separate the roll from the strip. Such a loosely rolled cellular body 5 is shown in Figure 2. Thereupon this cellular body 5 is passed between two pressing jaws 6 of definite shape as illustrated in Figure 3, which are heated and which impart to the cellular body 5 the desired shape under pressure and heat. As shown, single-faced corrugated cardboard is utilized and the pressing jaws must be such as to form the

2

roll into a body structure having at least one leg and an end member extending therefrom. Figure 3 shows the cellular body or padding pressed into the shape of a right-angle. The pressure is so chosen that the corrugated paper winding yields and conforms to the hollow shape of the press, whilst the cells formed by the corrugations retain their cellular property. The padding 5 thus produced is kept in the press and the heat and pressure are maintained until the layer of adhesive has dried and the cushion has solidified or set in its altered shape.

After removal from the press the paddings or cushions 5 are ready to be used. They may also be cut to any suitable length. The paddings may also have imparted to them any other desired cross section and have legs or limbs of unequal thickness. A padding profile of U-shape including parallel legs and a straight connecting end member as shown in Figure 4 and Figure 5 illustrating a padding or cushion with spaced legs and an arcuate connecting end member.

Thus in all forms of construction the padding consists of a cellular body built up from a continuous strip of wound corrugated cardboard or paper, the individual turns of which are united by an adhesive, and pressed into the desired shape with either a smooth or a corrugated outer surface. That is to say, the corrugated paper can be wound in such a manner that the cellular body presents on the outside the face or facing layer of the corrugated cardboard as the external face of the padding, or if desired the winding can be such that the corrugated layer constitutes the external face of the padding.

Figure 6 illustrates a completely assembled insert consisting of a plurality of paddings or cushions 5 for insertion in a packing carton. This assembled insert includes two walls 7 and 8 of corrugated paper or cardboard and a bottom 9, also of corrugated paper, connecting the said walls together. To the walls 7 and 8, which may be provided at the top, with carrying lugs 10, there is secured, for example, by adhesive, the paddings 5 produced by this method. By adapting the shape of the paddings 5 to the shape of the goods to be packed, it is possible to maintain fragile or delicate goods to be transported in spaced relation from the walls of the package or carton and thus protect them against shocks or impacts and prevent in all circumstances, the occurrence of damage or injury to the goods in instances of careless and negligent handling during transportation.

As indicated, the shock-absorbing cushion is

3

produced from and comprises a continuous strip and each of the leg or legs and the end member of the produced cushion is multi-layered, with all layers comprising portions of the continuous strip or piece of corrugated paper or cardboard.

I claim:

1. A method of making shock absorbing cushions for insertion in containers comprising applying adhesive in tacky condition to the corrugations of a continuous strip of corrugated cardboard, rolling said strip into a loose roll of desired dimensions, severing said strip to separate the roll therefrom, subjecting the roll to heat and pressure while the adhesive is still tacky to alter its bodily form and provide a body structure including at least one leg and an end member extending therefrom, the pressure being applied in a direction perpendicular to the axes of the corrugations and maintaining the application of heat and pressure until the adhesive has solidified to maintain the altered form.

2. A packing cushion comprising a continuous piece of single-faced corrugated cardboard rolled

4

continuously upon itself and deformed to provide in cross section a body including at least one leg and an end member extending therefrom, each of said leg and member having multi-layers of corrugated cardboard therein, all of said layers comprising portions of said continuous piece and adhesive between the corrugations of one layer and the face of the adjacent layer.

3. A packing cushion as defined in and by claim 2 in which the face layer of the single faced cardboard is external.

PAUL TADINGER.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
550,282	Martin	Nov. 26, 1895
2,221,006	Romanoff	Nov. 12, 1940
2,271,265	Kirby	Jan. 27, 1942
2,422,998	Adams et al.	June 24, 1947