Oct. 28, 1924. 1,513,543

O. H. FRITSCHE

STUFFING OR FILLING FOR BOXES AND THE LIKE

Filed July 14, 1919

Fig. 1.

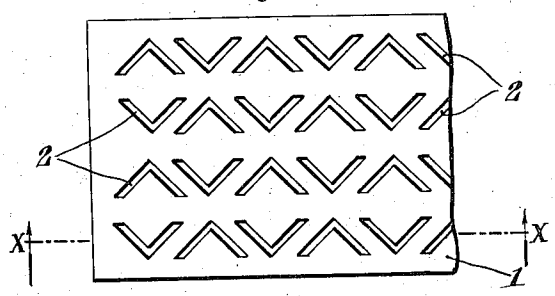


Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

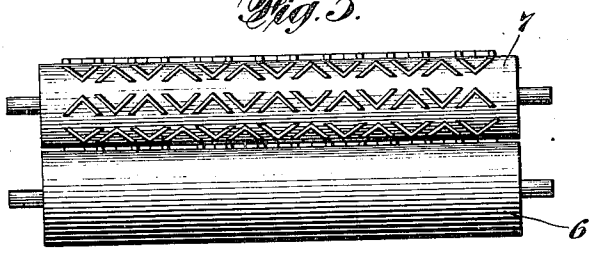
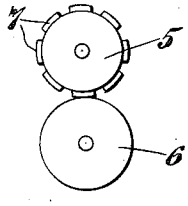


Fig. 6.



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UNITED STATES PATENT OFFICE.

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STUFFING OR FILLING FOR BOXES AND THE LIKE.

Application filed July 14, 1919. Serial No. 310,621.

To all whom it may concern:

Be it known that I, OSCAR H. FRITSCHE, a citizen of the United States, residing at the borough of Manhattan, city of New York, county of New York, and State of New York, have invented a certain new and useful Improvement in Stuffing or Filling for Boxes and the like, of which the following is a specification.

My invention relates to improvements in articles of manufacture intended for use as a protecting stuffer or filler for boxes of various sorts holding articles that are apt to be easily crushed or injured by jarring, scratching or otherwise. My invention also is adapted to be used as a matting, as a surgical dressing, and for many other purposes.

My invention relates more particularly to articles of manufacture, as above described, composed of a number of layers of cellulose sheets suitably reinforced and stiffened.

An object of my invention is the production of articles of manufacture of the character above described, having great resiliency and springiness.

A further object of my invention is the production of said articles of manufacture having moisture insulating qualities.

Other objects are simplicity, inexpensiveness and facility of manufacture.

Still other objects and advantages of my invention will appear from the following description.

I shall now describe the embodiment of my invention illustrated in the accompanying drawing, and shall thereafter point out my invention in claims.

Figure 1 is a plan view of a sheet of stuffing or filling embodying my invention.

Figure 2 is an edge view thereof.

Figure 3 is a cross-section taken on the line 3—3 of Figure 1.

Figure 4 is an enlarged edge view of a single cellulose sheet.

Figure 5 is a side elevation of rollers used in the manufacture of my invention.

Figure 6 is an end elevation thereof.

In the illustrated embodiment of my invention, the article of manufacture is shown as a flat body 1 having suitable ornamental depressions 2 thereon for the purposes hereinafter set forth.

The body 1 consists of a number of layers of cellulose sheets 3 and a layer of suitable heavy paper or other backing 4. The cellulose sheets 3 are very thin and highly porous. When a number of these sheets are superimposed, a relatively large quantity of air is enclosed and caught in the unitary structure making it highly resilient but at the same time very flexible and limp. This enclosed or entrapped air adds to the natural resilience of the cellulose sheets making the complete structure very springy and resilient. For many purposes the limpness in the body 1 is objectionable and this is overcome by making suitable depressions 2 in the superimposed cellulose sheets 3. These depressions may preferably be of an ornamental character so as to be pleasing to the eye. In making these depressions 2, the layers 3 are very tightly pressed together at the points of the depressions 2, thus forming relatively stiff portions in the body 1. In making the depressions, care should be taken that they are so arranged as not to detract too much from the resiliency and springiness of the article. This is accomplished by proper spacing of the depressions. The layer 4 may be of any suitable paper preferably having a glazed surface. I have found in many instances that it is preferable to use a waxed or paraffined paper or a paper commonly known in the trade as "glassene." This paper acts as a moisture insulation either keeping out moisture or retaining it. The article of manufacture thus in addition to acting in a stuffing or filling capacity tends to protect the commodity with which it is used from the atmosphere and keeps it in its original condition. It is especially useful in packing candy.

In manufacturing my invention, the cellulose sheets 3 are usually laid upon each other until the desired thickness is reached and if desired a small amount of adhesive may be used between the sheets. These cellulose sheets are then joined to the layer 4 by running them through any suitable rollers 5 and 6, such for example as are shown in Figures 5 and 6, a suitable adhesive being used between the sheets 3 and the layer 4. The depressions in the sheets 3 may be formed by having proper projections 7 in the roller 5. The roller 6 is

usually plain. The rollers 5 and 6 are spaced a suitable distance from each other. In running the sheets 3 and backing layer 4 through the rollers, the sheets 3 are next to the roller 5 and the backing layer 4 is next to the roller 6. The projections 7 press certain portions of the sheets tightly against the backing layer 4 and form the depressions 2. After being run through the rollers, the body 1 is then cut to any desired size and is ready for use.

It is obvious that various modifications may be made in the construction shown in the drawing and above particularly described within the principle and scope of my invention.

I claim:

1. A box filling consisting of a number of superimposed cellulose sheets and a backing layer of glassene.

2. A box filling consisting of a number of superimposed cellulose sheets and a backing layer of waterproof material.

3. A box filling consisting of a number of superimposed cellulose sheets and a backing layer of oiled paper.

4. A box filling consisting of a number of superimposed cellulose sheets, a backing layer therefor, and depressions formed in the cellulose sheets adapted to stiffen and hold the sheets together.

5. A box filling consisting of a number of superimposed cellulose sheets, a backing therefor, and depressions in the cellulose sheets adapted to stiffen and hold the sheets together, the portions surrounding the depressions being soft and resilient.

6. A filling for candy boxes, consisting of a number of superimposed cellulose sheets, each sheet composed of a single layer of cellulose fibers, a backing layer therefor, and depressions formed in the cellulose sheets adapted to stiffen and hold the sheets together.

In testimony whereof I have signed my name to this specification this 7th day of July, 1919.

OSCAR H. FRITSCHE.