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J. E. PARSONS

COMPOSITION BOARD AND PROCESS OF MAKING THE SAME

Filed Dec. 28, 1922

Fig. 1.

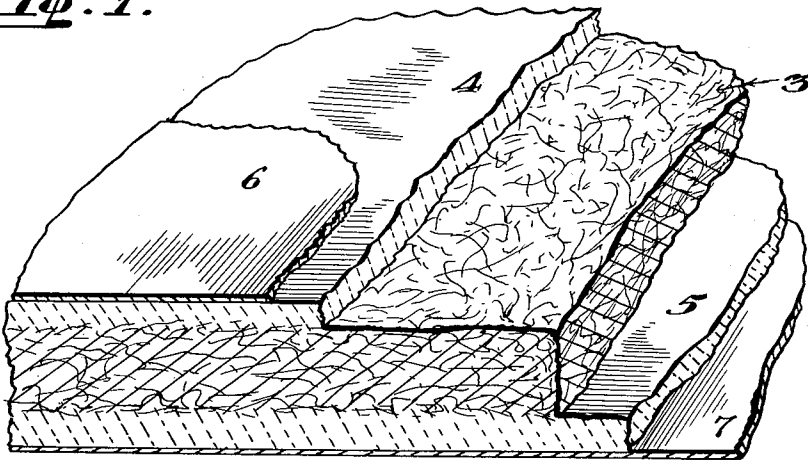


Fig. 2.

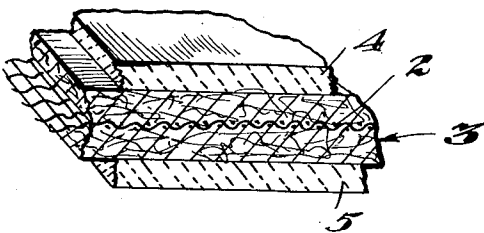
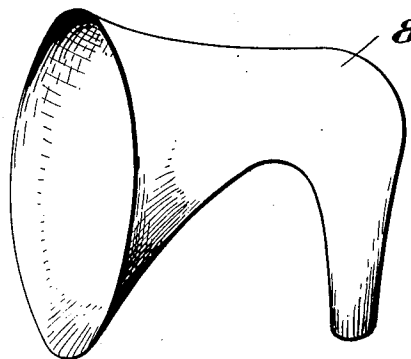


Fig. 3.



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COMPOSITION BOARD AND PROCESS OF MAKING THE SAME.

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To all whom it may concern:

Be it known that I, JOHN E. PARSONS, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in a Composition Board and Process of Making the Same, of which the following is a specification.

My invention relates to a fibrous composition board and a process for making the same.

My object is to treat soft flexible fibrous material in such a manner that it will be rendered hard, non-flexible, rigid and non-elastic, and during the treatment be formed into various shapes, particularly articles of manufacture, such as panels, radio horns, tubes, containers, and the like.

Another object is to provide a non-vibratory material that is adapted to be used in making articles wherein it is desirable that vibration be non-existent or nearly so and which is especially applicable to the manufacture of non-resonant horns, trumpets, or megaphones, for use on radiophones, phonographs, etc.

With these and other objects that may hereinafter appear my invention resides in the method and construction substantially as hereinafter described and claimed, and illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of a fragment of material produced by my process and with successive layers broken away so as to clearly identify the material.

Figure 2 is a sectional view showing a modified construction of my fibrous composition board.

Figure 3 is a view in perspective of an article made in accordance with my invention.

In carrying out my invention I employ a sheet of soft flexible fibrous material 3, such as felt, matted material or coarse loose woven material, such as burlap. This sheet material is immersed in a bath of heated liquid compound composed of substances which will solidify when cooled, the liquid consisting preferably of glue, shellac, and resin, mixed with water. The ingredients of the liquid are combined in any desired manner and in any suitable proportions.

The fibrous material 3 is kept in the bath until it has absorbed as much of the liquid

as it will hold. While the sheet is in the bath the liquid will permeate and penetrate the material until it is in a substantially saturated condition, that is, with the interstices between the fibers and throughout the sheet filled with the liquid.

The fibrous material may be treated as stated in the foregoing with any one of the ingredients of the compound, or with any combination of two or more of the parts in equal quantities or otherwise.

After the fibrous material has become thoroughly saturated with the liquid compound it is removed from the bath and subjected to a drying action until the compound is partially set and fixed therein.

The next operation is to compress the pliable saturated material into any desired shape by rolling between forming rolls, by moulding over a pattern, or by forcing with any suitable pressure means into a matrix until the desired shape or form is had, for example to form an article, 8, here shown in Figure 3 as a radio horn.

When the material 3 is formed and still pliable, and before it has had time to dry or stick to a mould, it is removed and partly dried until set, so as not to be easily distorted, or so it will retain its shape.

While still damp and not thoroughly dry the material 3 is covered with coats of paste 4 and 5 composed of glue, commercial whitening, resin and shellac, mixed with hot water until the ingredients make a plastic pasty substance that may be applied thereon by painting or that may be worked into the material 3 to any desired extent. This coating is dried and thereby hardened whereupon it may be finished with paint, shellac, or other self hardening coatings 6 and 7.

In some instances the product may be reinforced by embedding a wire fabric 2 therein, such for example as shown in Figure 2.

The finished product is extremely hard and strong, is not easily fractured, yet is comparatively light in weight, and possesses the highly desirable quality of non-elasticity and is practically non-vibratory.

I claim:

1. A process of making a composition board consisting in first immersing a flexible fibrous sheet of material in a heated liquid composed of glue, shellac, resin and water, until the fibrous material becomes saturated with the liquid, second, removing the satu-

rated fibrous material, third, partly drying the material, forming the saturated material by applying pressure thereto, and fourth, coating the material with a plastic paste
5 composed of glue, commercial whiting, resin and shellac.

2. A process of making composition board consisting in, first, immersing a flexible
10 sheet of matted material in a heated solution composed of glue, resin and water, so the matted material will absorb some of the solution, second, removing the matted material, third, semi-drying the material and
15 subjecting it to pressure to change its form, fourth, applying a coating of plastic paste composed of glue, commercial whiting, resin and water, and fifth, applying a surface coating to the formed material.

3. A composition board comprising, a
20 sheet of fibrous material, a mixed solution

composed of glue, resin, shellac and water with which the material is saturated, and a coating of plastic paste composed of glue, resin, shellac, commercial whiting and
25 water.

4. A composition material consisting of a fibrous material saturated in and thoroughly impregnated with a liquid which solidifies when cool, and a surface layer of plaster
30 adhered to said fibrous material on each side thereof.

5. The process of making a composition material consisting in saturating and thoroughly impregnating sheet fibrous material
35 with a hardening liquid compound, forming the material to shape while pliable, and coating the material with a plastic composition.

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