Jan. 23, 1923.

1,442,793

A. C. BROWN.
BATTING.
FILED AUG. 11, 1921.

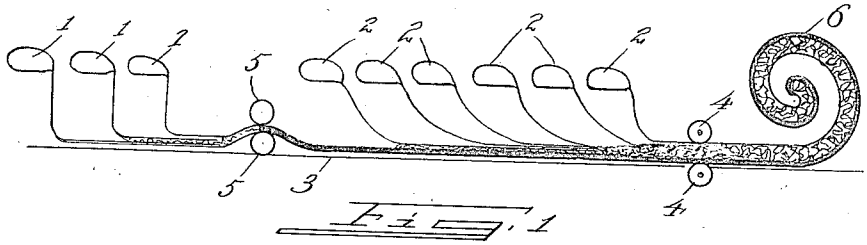


Fig. 1.

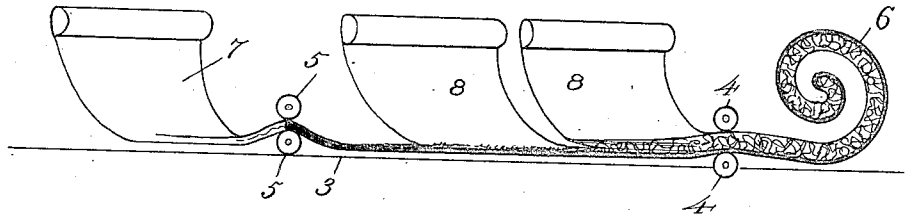


Fig. 2.

INVENTOR:
Alfred C. Brown
BY Allen & Allen
ATTORNEYS.

Patented Jan. 23, 1923. 1,442,793

UNITED STATES PATENT OFFICE.

ALFRED C. BROWN, OF LOCKLAND, OHIO, ASSIGNOR TO THE STEARNS & FOSTER COMPANY, OF LOCKLAND, OHIO, A CORPORATION OF OHIO.

BATTING.

Application filed August 11, 1921. Serial No. 491,639.

To all whom it may concern:

Be it known that I, ALFRED C. BROWN, a citizen of the United States, and a resident of Lockland, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Batting, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to cotton batting such as is employed for various purposes as for example upholstery, comforts, cushions, and the like. Such batting is made up into webs, and the webs rolled into circular rolls for shipment, and later unrolled for use.

The manufacture of cotton batting involves in its essentials a series of carding machines from which the combed fibre comes out and falls onto a traveling belt, said belt accumulating the fibre webs dropped from the various machines and matting them together into a thick web which is rolled up or folded up as desired. The action of the fibres falling from the carding machine on a traveling table or belt forms the webs, and there are several customary ways of depositing the fibre on the table or belt.

When the various superimposed webs are matted into a fairly homogeneous thicker web, and this web is formed into a roll, it is quite difficult to unroll it again into the same shape as it was prior to rolling, since the fibres are but loosely held together and the surfaces rolled against each other tend to adhere.

This fact necessitates the use of strips of paper laid over the thick web as it is rolled into a cylindrical roll, which adds considerably to the cost of the bale or roll, and is a great nuisance to the user. The paper strips accumulate on the floor and table where the batting is used and must be cleared away.

Even with the strips of paper used as a separating agent the fluffy surface of an uncalendered web tears easily in handling.

It has been the practice in some instances to form up a thick web of batting, as above described, and then calender the whole web, but this is unsatisfactory as the elasticity of the batting is largely reduced, and a number of layers of calendered batting must be used where one would suffice to get the necessary thickness.

It is the object of my invention to do away with the necessity of calendering the webs of batting, and with the use of paper, and to produce a batting web which is easily rolled and unrolled and easily formed into folds for use in upholstery.

This I accomplish by that certain form of batting and process of making the same to be hereinafter more specifically pointed out and claimed.

In the drawings,

Figure 1 is a diagrammatic view showing one method of making cotton batting, together with the appliance necessary in forming my novel form of batting.

Figure 2 is a like view showing the "camel back" or "run out" method of making cotton batting together with my appliance in connection therewith.

Referring first to Figure 1 it will be noted that the outlets of a series of carding machines are shown at 1, and of another series in line with the first series are shown at 2. The traveling belt or accumulating table is shown at 3, and the matting rolls for lightly forming the various webs into a full thickness web are shown at 4.

I have located between the first and second series of carding outlets a set of calendering rolls 5, which lie just above the traveling table and receive the webs from the first set of carding machines and calender them in the usual manner.

The calendered web drops right back to the table and has superimposed on it the webs from the remaining carding machines, after which the whole is formed into a single web by the matting rolls and is ready for being folded, rolled or baled.

It will be noted that the calendered surface of the complete web will serve as a complete, non-adherent liner for a roll of batting as at 6 and that this will prevent the adherence of fluffy cotton in unrolling or unfolding.

Furthermore, there being but one third of the cotton, in the particular instance shown, which is calendered, the resilience or elasticity of the completed web is not materially affected.

If the cotton is to be permanently doubled or otherwise folded after it passes the matting rolls, then but a portion of the first series of webs is calendered, the remaining portion of the said webs being allowed to travel along with the portion that is calen-

dered, but not subjected to pressure due to the short length of the calender rolls. This remaining portion that is left uncalendered is the part that is folded over leaving a calendered bottom to the web.

In case the webs formed as above are to be formed into upholstery folds, then the rolls may be so arranged that the outer surface of the fold is of calendered material, the folds on the inside of the completed "fold" being entirely free from calendering.

The essence of the invention will be evident from the foregoing description in which no attempt has been made to illustrate the actual machine. The webs from the carding machines, in forming an ordinary bat, run from eight to sixteen, depending on the weight and thickness desired. A single web from one carding machine would ordinarily be too light and thin to calender properly, so as illustrated in diagram in Figure 1, I take for example three of these webs. If the completed bat is to be folded longitudinally, then the calendered portion is only of the width of the ultimate fold.

In the "run out" type of machine the web at 7 is deposited on the traveling table ahead of the calendering rolls and the webs 8, 8, deposited after the calendering rolls, the result being the same as before.

In its essential respects my novel form of batting is not concerned with the width or uniformity of the calendered portion of the bats, but with the fact that I form as an integral part of a cotton or similar bat a separator of calendered stock in place of paper strips or the like. Where the calendered portion serves as a full protection for one side of the product I have fully proven that the resilience of the complete product is practically as good as of a bat that is fluffy throughout.

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

1. A bat of cotton or the like, comprising a series of superimposed layers of deposited fibre matted to form the bat, with a portion of some of the layers of the bat calendered prior to the matting to form a non-adherent contiguous surface for the bat when formed into a package.

2. A bat of cotton or the like, comprising a series of superimposed layers of deposited fibre matted to form the bat, with a plurality of the bottom layers calendered, at least in part, prior to the matting of all the superimposed layers, whereby a non-adherent contiguous surface is provided for the bat when formed into a package.

3. A bat of cotton or the like, comprising a series of superimposed layers of deposited fibre matted to form the bat, with a plurality of the bottom layers calendered for the entire width prior to the matting of all the superimposed layers, whereby a non-adherent contiguous surface is provided for the bat when formed into a package.

ALFRED C. BROWN.