H. B. MORRIS.

CHAIR SEAT AND METHOD OF MAKING IT.

(Application filed June 30, 1902.) (No Model.) Fig.2 20itnesses. J.M. Fowler for a.M. Parkuns. Enventor By Baldwin Sandsollight. his Atteps.

UNITED STATES PATENT OFFICE.

HENRY B. MORRIS, OF MICHIGAN CITY, INDIANA.

CHAIR-SEAT AND METHOD OF MAKING IT.

SPECIFICATION forming part of Letters Patent No. 714,730, dated December 2, 1902.

Original application filed May 3, 1902, Serial No. 105,852. Divided and this application filed June 30, 1902. Serial No. 113,793. (No model.)

To all whom it may concern:

Be it known that I, HENRY B. MORRIS, a citizen of the United States, residing at Michigan City, in the county of Laporte and State of Indiana, have invented certain new and useful Improvements in Chair-Seats and in the Methods of Making Same, of which the following is a specification.

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In my United States Patent No. 672,102 of April 16, 1901, I have described a method of making chair-seats designed to resemble the well-known flag or rush seats, which consists in covering a seat-frame with a twisted or spun colored paper cord of indefinite length, then treating the paper seat thus formed with waterproofing material, and after smoothing down the waterproofed seat by rubbing it with sandpaper applying a finishing-varnish. I also describe in said patent a way of packing the seat by means of pads which were introduced between the layers of paper cord.

My present invention relates to certain improvements in the method described in my

above-mentioned patent.

I have found that instead of placing previously-formed packing-pads of uniform size between the layers of the covering better results are obtained by stuffing loose packing material into the spaces between the layers of the covering in varying quantities, as occasion may require. I have also found that the seat may be improved by inserting pieces of veneer, pasteboard, or the like between the layers of the fabric in such manner as to hold the upper layer firmly and smoothly, the individual strands lying evenly and not being liable to be pressed down below a common level.

In the accompanying drawings, Figure 1
40 shows how a strip of colored paper is twisted or spun into a cord of suitable kind. Fig. 2 is a plan view of a chair-seat frame with a number of strands of paper cord applied to prepare the frame for the main winding. Fig. 45 3 is a top plan view of a chair-seat partially formed, the manner of winding the continuous cord being indicated by the loose turns of the cord. This figure also indicates the manner of inserting the pieces of veneer. Fig. 4

50 is a bottom plan view similar to Fig. 3, indicating the manner of inserting the packing the lower and middle layers of the paper windings to curve or round out to the proper extent. According to my present improvements when the winding has progressed to the extent shown in Fig. 4 pieces of paper P are inserted between the lower and middle layers of the paper

material. Fig. 5 is a detail view in section, showing the particular manner of arranging the pieces of veneer and the packing material between the layers of the paper cord. Fig. 6 55 is a view, on a reduced scale, of the completed seat.

The paper cord A may be formed in precisely the same manner as that described in my before-mentioned patent, though I of 60 course do not herein limit myself to the precise method therein described. The cord is wound upon the seat-frame B before being varnished, and preferably it is moistened or dampened before being wound, because the 65 strands are thus made to lie more closely together and will flatten down to a more desirable extent where they cross each other, and thus produce a more compact fabric.

When the seat-frame is wider at the front 70 than at the rear, as indicated in Fig. 2, a few strands of the cord are wound upon it and secured in the manner indicated in Fig. 2 and as fully illustrated and described in my former patent. The main winding of the 75 cord is proceeded with in the same manner as that described in said patent and as indicated in Fig. 3. After a few strands of the cord have been wound on the frame pieces of veneer C, which are preferably triangular in 80 outline, are arranged in the frame. Cardboard or other material similar to veneer may be used; but I find thin pieces of wood to be the best. The veneer is inserted preferably between the upper and middle layers 85 of the windings, the opposite corners of the triangular pieces being held by the few windings of the cord while the winding is proceeded with. When the winding of the cord has progressed to a considerable extent, I in- 90 sert packing material in the manner indicated in Fig. 4. In my former patent pads of packing material were inserted. These were of uniform size, and it was found that the pads did not always pack tightly and did not put 95 the cords under sufficient tension and cause the surface of the paper windings to curve or round out to the proper extent. According to my present improvements when the winding has progressed to the extent shown in 100 Fig. 4 pieces of paper P are inserted between

winding, and then excelsior or similar material p is introduced. A single layer of paper may be employed, which should lie next to the bottom layer of the paper winding, the 5 main purpose of the paper being to prevent the excelsior or other packing material from sifting through the under side of the seat. Preferably, however, I employ two thicknesses of paper forming an open pocket, such 10 as illustrated in Fig. 5, and stuff the packing material between the layers. By using a suitable tool F the excelsior may be stuffed into the corners and around the edges in such manner as to round out the windings and put 15 the cords under tension, causing them to lie close together and preventing them from bending laterally or separating from each other. Most all of the packing material may be inserted when the seat is in the condition 20 shown in Fig. 4. The winding may then be proceeded with, and just before the last two or three windings are applied more packing material may be inserted, if desired. When the winding is completed, the seat will be com-25 posed of the frame completely covered by the windings of paper cord, excepting at the corners a. There will be triangular pieces of veneer between the upper and middle layers of the cord and packing material between the 30 bottom and middle layers. This construction is clearly indicated in Fig. 5. The pieces of veneer serve to hold the strands evenly while the seat is in use, preventing a small number of strands being depressed below the 35 common level by pressure applied to a few of them.

After the frame of the seat or back is wound in the manner above described it is varnished and polished, preferably in the manner described in my application for patent, Serial No. 105,852, filed May 3, 1902, of which the present application is a division.

So far as part of the invention is concerned other material than paper may be employed.

I claim as my invention—

1. The method, substantially as herein described, which consists in partially covering

a chair-seat frame with strands of fibrous material to form upper and lower layers, inserting pieces of strengthening material between 50 the layers, then continuing the winding of the frame, then inserting pieces of paper and packing material between the layers of the fabric, and forcing it into place in such manner as to put the strands under tension, and 55 then completing the winding on the frame.

2. The method, substantially as herein described, which consists in partially covering a chair-seat frame with strands of paper to form upper, lower and middle layers, inserting pieces of thin strengthening material between the upper and middle layers, then continuing the winding, then stuffing packing material between the lower and middle layers of the fabric, thus putting the strands under 65 tension, and then completing the winding.

3. A chair-seat comprising a frame, covered by strands of fibrous material forming upper and lower layers, sheets of thin strengthening material interposed between the layers, and 70 pieces of paper and packing material also interposed between the layers of the fabric for

the purpose specified.

4. A chair-seat comprising a frame, a covering therefor consisting of strands of fibrous 75 material wound on the frame to form three layers of fabric, triangular pieces of veneer interposed between the upper and middle layers of the fabric, and pieces of paper and packing material interposed between the mid-80 dle and lower layers.

5. A chair-seat comprising a frame wound with twisted-paper cord, forming three layers, pieces of veneer interposed between the upper and middle layers, and packing material in-85 terposed between the middle and lower layers and serving to put the strands under tension,

substantially as described.

In testimony whereof I have hereunto subscribed my name.

HENRY B. MORRIS.

Witnesses:

ARTHUR N. GITTINGS,
ARTHUR D. MCBURNEY.