

Aug. 12, 1952

B. J. SMITH

2,606,598

KNEELING PAD AND METHOD OF MAKING THE SAME

Filed April 21, 1950

2 SHEETS—SHEET 1

FIG. 1.

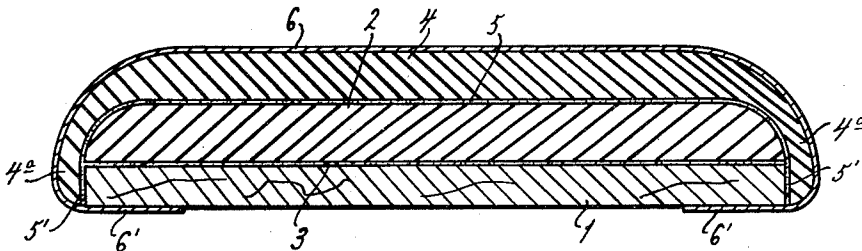
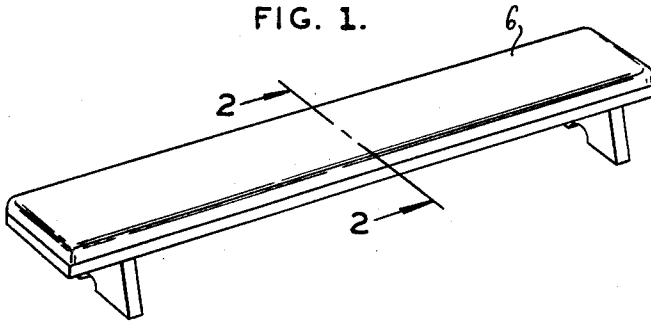


FIG. 2.

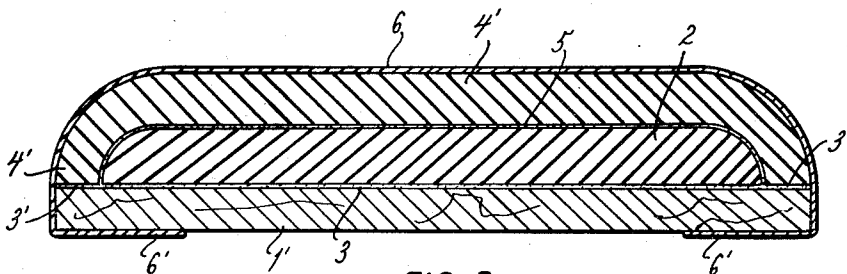


FIG. 3.

INVENTOR.

BENJAMIN J. SMITH

BY

J. H. Cook

ATTORNEY

Aug. 12, 1952

B. J. SMITH

2,606,598

KNEELING PAD AND METHOD OF MAKING THE SAME

Filed April 21, 1950

2 SHEETS—SHEET 2

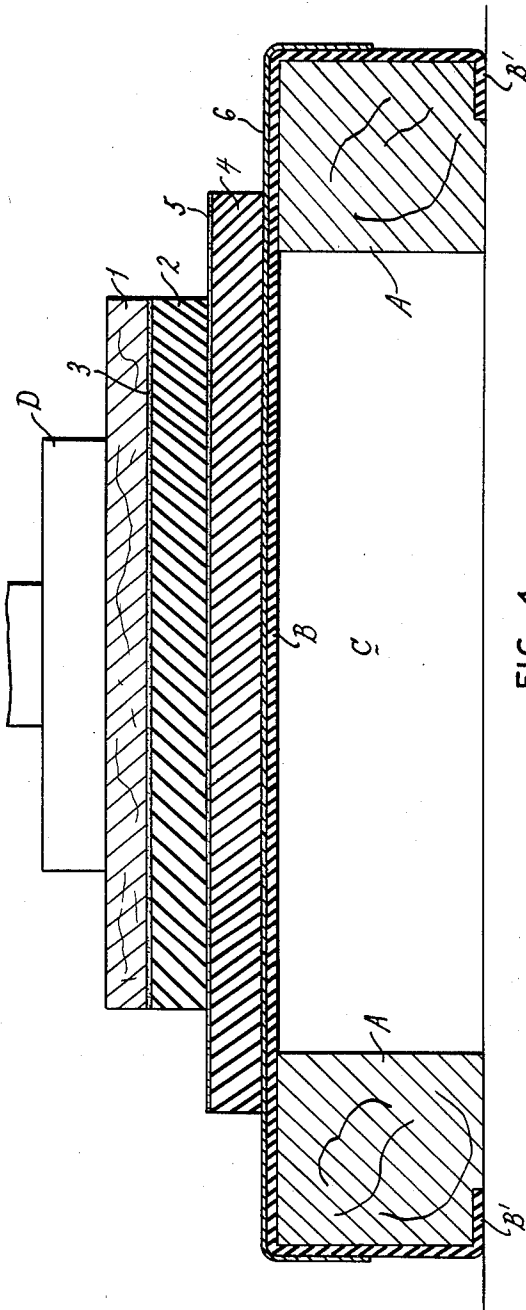


FIG. 4.

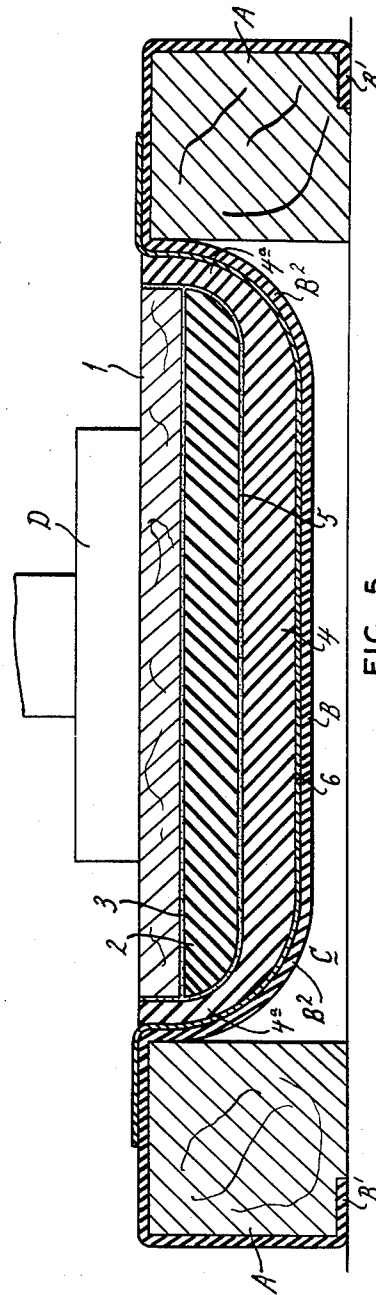


FIG. 5.

INVENTOR.
BENJAMIN J. SMITH
BY
J. H. Look
ATTORNEY

UNITED STATES PATENT OFFICE

2,606,598

KNEELING PAD AND METHOD OF MAKING
THE SAME

Benjamin J. Smith, St. Louis County, Mo.

Application April 21, 1950, Serial No. 157,201

2 Claims. (Cl. 155-166)

1

This invention relates to kneeling pads and methods of producing them, and particularly to such a pad which is adapted to be placed on a bench in a church, or the like, where the congregation kneels during services, or wherever required for the comfort of one who is obliged to assume a kneeling position.

The principal object of the invention is to produce a pad of this type from which the harder, square edges found in the ordinary kneeling pad are eliminated in favor of soft, rounded edges, without the use of specially pre-molded sponge rubber with soft rounded edges, which requires costly molding equipment and which is limited in dimensions to the molding equipment, and without relying on the compressibility of the sponge rubber to obtain soft, rounded edges. The soft, rounded edges not only add to the comfort of the user, but also increase the life of the pad, since it reduces wear on the covering material at these soft, rounded edges. Another advantage of my pad is that it may be produced with the minimum of time and labor, which makes for low cost of production.

In the drawings—

Fig. 1 is a perspective view of a bench showing one of my kneeling pads in operative position thereon.

Fig. 2 is an enlarged cross-sectional view taken on line 2-2, Fig. 1, showing particularly the means for effecting the rounded edges of my pad.

Fig. 3 is an enlarged cross-sectional view, similar to Fig. 2, of a modification of my kneeling pad.

Fig. 4 is an enlarged elevation showing the elements of my kneeling pad in position before pressure is applied thereto.

Fig. 5 is a view similar to Fig. 4 but with the elements in position after pressure has been applied thereto.

My new kneeling pad comprises a base 1, preferably of wood and of rectangular shape. A layer of sponge rubber 2 of the same dimensions as the base 1 is secured to the upper surface of the base by means of any suitable adhesive 3. A second layer of sponge rubber 4 is mounted upon the layer 2, and secured thereto by a coating of adhesive 5, the layer 4 being of such length and width as to permit of its extending over the ends and sides of the layer 2 and the base 1 to the bottom of said base, as shown at 4^a, and the adhesive 5 also extends to the bottom of the base 1 as shown at 5'. The kneeling pad is provided with a covering 6 of any suitable, durable material, for instance, a strong fabric simulating

2

leather, and this covering material 6 extends over the entire surface of the sponge rubber 4, including the sides and ends, and extends for a short distance underneath the base 1 at the sides and ends thereof, as shown at 6', and is secured in any suitable manner, for instance, by staples (not shown).

My method for producing the above described kneeling pad is as follows:

I place two blocks A of any suitable material, preferably wood, upon a support, for instance a table, spacing them apart at a distance equal to the width of the kneeling pad which I wish to form, the blocks A being of such length as is necessary to form a kneeling pad of the desired length.

Upon the upper surfaces of the blocks A I lay a single section of heavy sheet rubber B, which is of such dimensions that it will extend over the entire space C between the blocks A and can be turned under said blocks, as shown at B', so that the rubber sheet is securely anchored.

Upon the rubber sheet B I lay a section of the covering material 6, which is of such dimensions that its outer portions will extend over the blocks A and hang for a short distance against the outer surfaces of said blocks, as seen in Fig. 4. The layer of sponge rubber 4 is now laid upon the covering material 6, and, as also seen in Fig. 4, this layer of rubber is slightly wider than the space between the blocks A, so that its marginal portions rest upon said blocks. The coating of adhesive 5 is then applied to the upper surface of the rubber 4, and the layer of sponge rubber 2 is placed upon said adhesive, the rubber 2 being of smaller dimensions than the rubber 4, as will also be seen in Fig. 4. The coating 3 of the adhesive is then applied to the upper surface of the rubber 2, and the wood base 1, of the same size as the rubber 2, is placed upon the adhesive 3, so that the edges of the wood base 1 and the sponge rubber 2 are flush with each other.

When the above elements have been positioned as described, as the next step in my method I apply downward pressure to the assembly by means of any suitable type of pressure arm D, which is placed upon the wood base 1. As downward pressure is applied, the elements are gradually forced into the positions shown in Fig. 5; that is to say, the downward pressure causes stretching in a downward direction of the rubber sheet B between the blocks A by reason of its elasticity, while at the same time the blocks A hold the stretched portion of said sheet between the blocks, which has the effect of causing the rub-

3

ber sheet B to assume the curving contour shown at B² in Fig. 5. As the rubber sheet B assumes this position, the sponge rubber 4 is forced downwardly by the pressure bar into the position shown in Fig. 5, so that it assumes the same degree of curvature as does the sheet rubber, and at the same time the pressure compresses the outer portions of the sponge rubber, as seen at 4^a. The covering material 6 retains its position between the rubber sheet B and the sponge rubber 4, remaining smooth and unwrinkled during this operation.

During the procedure just described, the sponge rubber 2 also is forced downwardly into the position shown in Fig. 5 until it is seated in the space formed by the curving sponge rubber 4, and the base 1 also is forced downwardly into said space, also as seen in Fig. 5.

When all of the parts have assumed the positions above described and as shown in Fig. 5, the loosely hanging end and side portions of the material 6 are folded over the wood base 1 and securely fastened thereto by means of staples (not shown) or in any preferred manner, as seen at 6' in Fig. 2, so that all of the elements are held together as above described, in which the adhesives 3 and 5 assist.

The completed kneeling pad is now ready to be removed from between the blocks A upon release of the pressure arm D. It is obvious that during the operation just described the wood base 1 is uppermost, but naturally when the pad is removed from between the blocks A its position is reversed so that in use the base 1 is at the bottom of the pad, as shown in Fig. 2.

The modification shown in Fig. 3 differs only slightly from the preferred form above described. In this form the base 1' extends the entire length and width of the kneeling pad. The sponge rubber pad 2 is mounted thereon and secured to the base 1' by the adhesive 3', which adhesive however extends to the edges of the base 1' so that there is a portion of said adhesive left exposed beyond the sponge rubber 2, which in turn has a coating of the adhesive 5. A second sponge rubber pad 4' is mounted upon the pad 2, but the sponge rubber 4', instead of extending to the bottom of the base as does the pad 4 in the preferred form, terminates at the upper surface of the base 1' and is secured thereto by the adhesive 3', being secured to the sponge rubber 2 by the adhesive 5. In this modified form also the covering material 6 extends over the entire surface of the kneeling pad, including the sides and ends, and extends for a short distance underneath the base 1', as shown at 6', where it is secured in any suitable manner.

Since the method followed in making the modified form of my invention corresponds exactly to the method for producing the preferred form as described above, it is deemed unnecessary to

4

repeat this description. Suffice it to say that in making the modified form the sponge rubber 4' is somewhat smaller than the sponge rubber 4 so that upon the application of pressure its outer portions will sink below the upper edges of the blocks A, and on the other hand, the wood base 1' is larger than the wood base 1, being of approximately the same dimensions as the space between the blocks A. The application of downward pressure and other steps described in connection with the preferred form of the invention are followed in making the modified form.

I claim:

1. A kneeling pad comprising a rigid base and a plurality of layers of resilient material, one of said layers adjacent said base being of small dimensions than said base and being securely mounted thereon, and the uppermost of said layers being of larger dimensions so as to extend over said first-mentioned layer and having its outermost portions secured to said base to present soft, rounded edges at the perimeter of said kneeling pad, said base and the respective layers of resilient material being secured by adhesives, and a cover comprising a single section of material fitting closely over the entire upper surface of said kneeling pad and being secured to the lower surface of said base.

2. The method of making a kneeling pad which comprises placing a section of elastic fabric upon a pair of spaced apart blocks, superimposing upon said elastic fabric a section of covering material for said kneeling pad, superimposing layers of resilient material upon said covering material, superimposing upon said resilient material a base for said kneeling pad, adhesively fastening said layers of resilient material and said base together, applying downward pressure to said assembled parts to cause the sides and ends of such resilient material to be rounded, and securing the outer portions of said covering material to the exposed surface of said base while being retained under such downward pressure and then releasing the downward pressure.

BENJAMIN J. SMITH.

REFERENCES CITED

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

UNITED STATES PATENTS

Number	Name	Date
1,680,509	Ducy	Aug. 14, 1928
2,053,471	Frost	Sept. 8, 1936

OTHER REFERENCES

Montgomery-Ward Catalog, 1941-1942, No. 135, p. 254, items Nos. 166Ab093, 166A6327.
Church Property Administration, March and April, pp. 30 and 80.