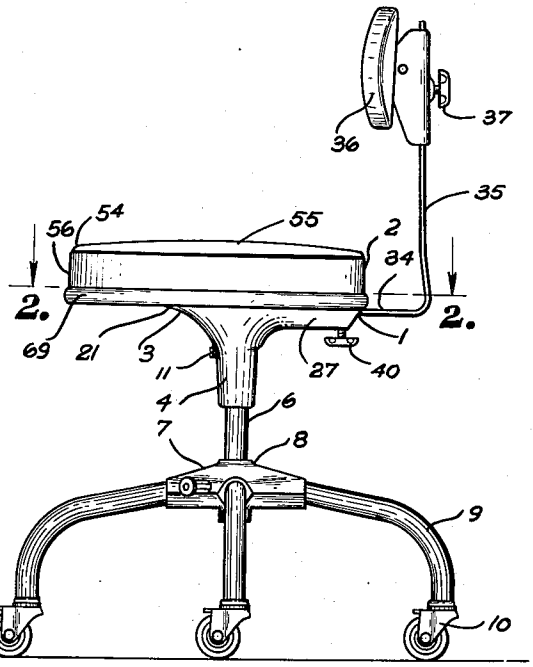
Feb. 28, 1961 R. A. CRAMER, JR 2,973,031

CAST BASE FOR CHAIR SEATS

Filed Dec. 8, 1958

3 Sheets-Sheet 1

Fig. 1.



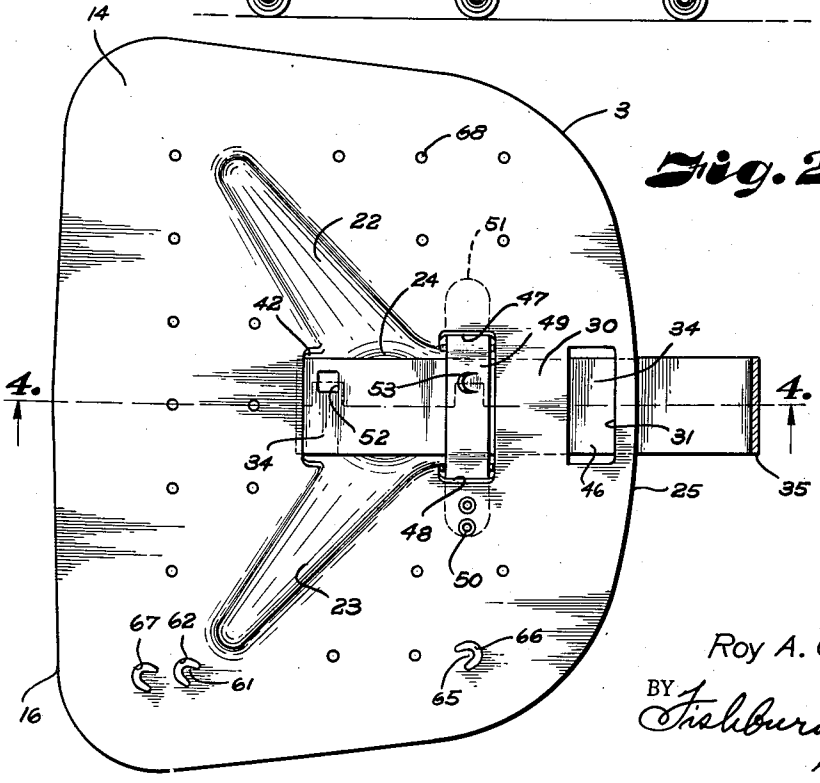


Fig. 2.

INVENTOR.
Roy A. Cramer Jr.
BY Fishburn & Gold
ATTORNEYS.

Feb. 28, 1961 R. A. CRAMER, JR 2,973,031

CAST BASE FOR CHAIR SEATS

Filed Dec. 8, 1958 3 Sheets-Sheet 2

Fig. 3.

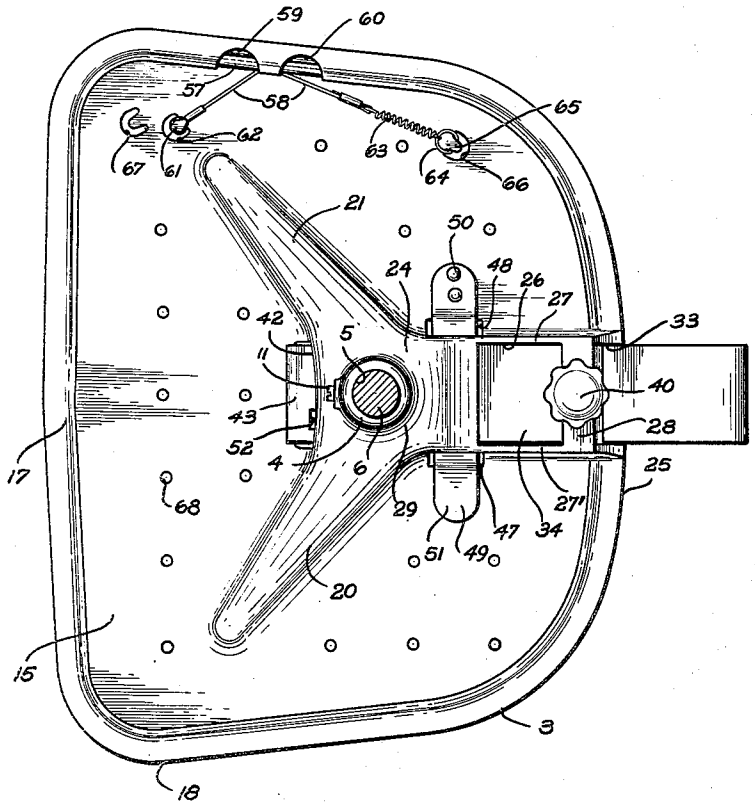
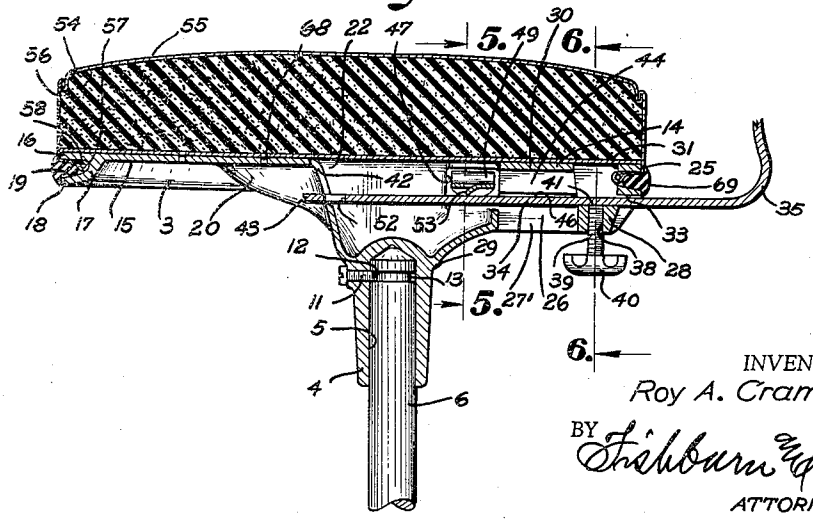


Fig. 4.



INVENTOR.
Roy A. Cramer Jr.
BY Fishburn & Gold
ATTORNEYS.

Feb. 28, 1961 R. A. CRAMER, JR 2,973,031

CAST BASE FOR CHAIR SEATS

Filed Dec. 8, 1958 3 Sheets-Sheet 3

Fig. 5.

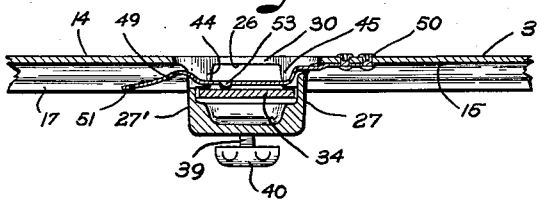


Fig. 6.

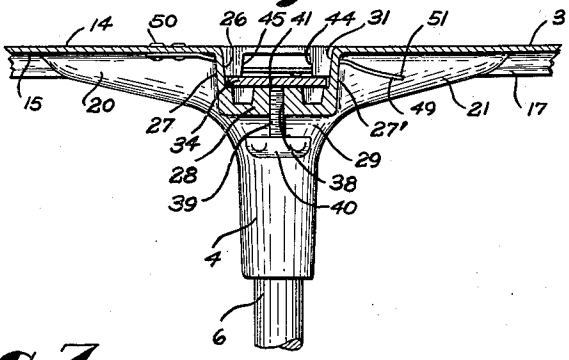
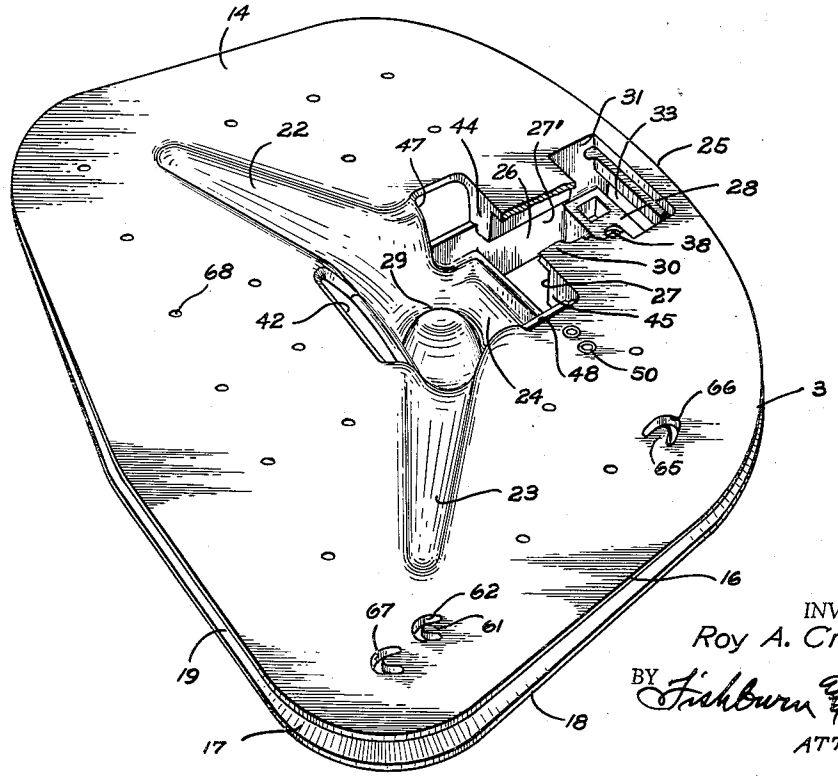


Fig. 7.



INVENTOR.
Roy A. Cramer Jr.
BY Fishburn & Gold
ATTORNEYS.

United States Patent Office

2,973,031

Patented Feb. 28, 1961

2,973,031

CAST BASE FOR CHAIR SEATS

Roy A. Cramer, Jr., Kansas City, Mo., assignor to Cramer Posture Chair Company, Inc., Kansas City, Kans., a corporation of Missouri

Filed Dec. 8, 1958, Ser. No. 778,805

2 Claims. (Cl. 155—194)

This invention relates to a seat base for chairs, and more particularly to a cast aluminum seat base for swivel chairs and the like.

Heretofore in making chair seat bases it has been necessary to make the same in two pieces in order to provide the necessary shape and openings therein for accommodating the accessories therefor and weld the sheets or otherwise secure them together.

It is therefore the principal object of the present invention to provide a one-piece chair seat base cast from aluminum or similar materials wherein the upper portion of the base will be substantially flat and the lower surface thereof will be recessed providing a flange thereabout and providing an annular groove completely around the periphery of the base.

Other objects of the invention are to provide the seat base on the underside with a depending boss provided with a socket for receiving the pedestal or standard of a chair base; to provide the underside of the base with laterally extending ribs integral with the depending boss, the top side of the base opposite to the radial arm being depressed providing grooves in the upper face of the base; to provide the intersection of the grooves in the underside of the base with an opening for receiving the end of the horizontal portion of the chair back; to provide the base with a channel for receiving the horizontal portion of the chair back; to provide a locking mechanism for said chair back; to provide the seat base with openings for receiving the ends of fasteners for holding the cover of the seat to the base; and to provide a device of this character simple and economical to manufacture.

In accomplishing these and other objects of the invention I have provided improved details of structure, the preferred forms of which are shown in the accompanying drawings wherein:

Fig. 1 is a side view of a chair to which my seat base is attached.

Fig. 2 is a cross sectional, plan view of the seat base taken on a line 2—2, Fig. 1.

Fig. 3 is a bottom plan view showing the cover for the seat attached to the base and the standard of the base of the chair in cross section.

Fig. 4 is a cross sectional view taken on a line 4—4, Fig. 2.

Fig. 5 is a cross sectional view taken on a line 5—5, Fig. 4.

Fig. 6 is a cross sectional view taken on a line 6—6, Fig. 4.

Fig. 7 is a perspective view of the seat base with portions broken away for better illustrating of the structure thereof.

Referring more in detail to the drawings:

1 designates a chair embodying the features of my invention including a seat 2, a base 3 for the seat having a depending boss 4 having a socket 5 for receiving a pedestal or standard 6 for a leg base 7, the leg base including a hub 8, legs 9 and casters 10. The boss 4 has a threaded lateral bore to receive a screw 11 having an end 12 engaging in an annular groove 13 near the upper end of the pedestal 6 for retaining the pedestal in the depending boss as is the usual practice.

The present invention is directed particularly to the base 3 for the seat 2 and is cast from aluminum or the like into a one-piece structure having a substantially flat top 14 and a bottom side 15. Spaced inwardly from the peripheral edge 16 a short distance is an integral flange 17 curved downwardly and outwardly forming a substantially horizontal annular flange 18 having its outer edge spaced from the edge 16, forming a groove 19 therebetween for a purpose later described. The flange 18 forms a recessed portion in the bottom side of the seat base, as best illustrated in Fig. 4. The depending boss 4 is formed integral with the bottom side of the base of the seat and has radially and downwardly extending ribs 20 and 21, and the top 14 of the base 3 is provided with grooves 22 and 23 exactly opposite from the ribs 20 and 21 on the bottom side 15 of the base 3 to lighten the structure. Intersecting the juncture 24 of the grooves 22 and 23, and extending rearwardly to the rear edge 25 of the base is a channel 26 formed by the juncture of the grooves in the base and by depending spaced walls 27 and 27′ on the lower side 15 of the base connected near the outer end by a cross member 28. The inner ends of the walls 27 and 27′ are integral with the hub portion 29 of the depending boss 4, as best illustrated in Fig. 3. The top or upper side 14 of the base 3 has a cross member 30 and an opening 31 spaced from the edge or periphery 25 of the base above channel 26, as best illustrated in Fig. 2. The ribs 20 and 21 and the depending boss 4 are tapered inwardly as they extend downwardly as indicated in Figs. 3 and 4.

An opening 33 is provided in the groove 19 or the base aligning with the channel 26 for receiving the horizontal arm 34 of a vertical back member 35 having the usual back rest 36 adjustable thereon by a hand screw 37, as is the usual practice. The cross member 28 is provided with a threaded opening 38 adapted to receive a threaded shank 39 of a hand wheel 40, the inner end of the shank 39 engages against the underside 41 of the horizontal portion 34 of the back member to hold the back adjusted laterally with respect to the chair, as best illustrated in Fig. 4. An opening 42 is provided in the forward and upper portion of the boss 4 between the ribs 20 and 21 at the juncture thereof through which the forward end 43 of the horizontal member 34 of the back is adapted to extend when adjusted horizontally with respect to the seat. Depending shoulders 44 and 45 are provided below the cross member 30 for engaging the upper face 46 of the horizontal member 34.

The side walls 27 and 27′ of the channel 26 are provided on the opposite sides with openings 47 and 48 for receiving a latch member 49 which has its respective ends extending through the openings 47 and 48. One end is secured to the underside of the base by rivets or the like 50. The latch member is made of spring steel and the free end 51 is turned downwardly from the base, as best illustrated in Figs. 5 and 6. The inner end of the horizontal portion 34 of the back member has an opening 52 therein and the latch member 49 has a struck-down portion 53 forming a tongue which extends forwardly and when the back is pulled rearwardly the tongue will engage in the opening 52 to prevent the back from being accidentally displaced from the chair. The latch has sufficient movement in the openings so that the end 51 may be manipulated by hand to disengage the tongue from the opening when desired.

A cushion 54 is provided for the seat and a cover 55 has depending sides 56 terminating in a loop 57 around the periphery thereof. A wire, cord or the like

58 is provided for engagement in the loop, the ends of which extend through spaced openings 59 and 60 in one side edge of the flange 18, as illustrated in Fig. 3, and one end of the wire or cord engages the tongue 61 in an opening 62 in the base and the other end is provided with a spring 63 having a hook 64 engaging the tongue 65 of an opening 66. An opening 67 is also provided spaced from the opening 62 which may be used for tightening of the wire 58 if necessary. The base 3 is provided with a plurality of spaced openings 68 to allow the air to move from the cushion 54, which is usually of sponge rubber or the like, to prevent entrapment of the air on the base.

A bumper 69 is provided for engagement in the peripheral groove 19 of the seat, also as is the usual practice.

It will be obvious from the foregoing that I have provided an improved base for a chair seat cast from a single piece of metal, such as aluminum or the like, which saves time in assembly of a base for chairs over the usual practice in making the base in two or more pieces.

What I claim and desire to secure by Letters Patent is:

1. In combination with a chair having a base for a standard, a cushioned seat and a back, the base for said seat cast in a one-piece structure including a top and a bottom, a flange spaced inwardly of the edge of said base integral with the bottom of said base and extending downwardly and outwardly forming an annular groove around the periphery of said base, spaced openings in said flange through which is extended the ends of an anchoring wire for mounting said cushion on said seat, tongues formed in said base engaging said anchoring wire ends, a bumper retained in said annular groove, spaced openings in said base to permit air to pass through, an elongated boss integral with and depending from the bottom side of said base, said boss having a socket extending longitudinally thereof for receiving said standard, said base including ribs extending radially thereof and spaced parallel walls extending from said boss to the rear edge of the base, said walls being perpendicular to the top of said base, the top of said base having grooves oppositely of said radial ribs, cross members connecting said spaced walls on the top and the bottom of said base, said spaced walls and cross members forming a channel in said base, said back including a horizontal arm engaging in said channel, oppositely facing openings in said spaced walls, a spring locking means engaged in said oppositely facing openings and above said arm, means on said spring locking means cooperating with said arm for retaining said arm in said channel, and a hand screw engaged in said bottom cross member and extending through said cross member and pressing against the bottom side of said horizontal arm whereby said horizontal arm may be adjusted laterally relative to said seat but is prevented by said latch member from being accidentally displaced from said seat.

2. A chair seat base having a boss integral therewith; said seat base being adapted to support a cushion seat and a back, said base having a top and a bottom, said boss depending from said bottom and having a socket extending longitudinally thereof for receiving a standard, said base including integral ribs extending downwardly and radially from said bottom and grooves positioned oppositely of said ribs on said top, integral spaced walls extending from said boss to the rear edge of said base, integral cross members connecting said spaced walls forming a channel in said base for receiving said back, said ribs and boss being tapered inwardly as they extend downwardly, whereby said seat base, boss, and ribs may be cast integrally.

References Cited in the file of this patent

UNITED STATES PATENTS

2,054,557	Cramer	Sept. 15, 1936
2,361,370	Grunwald	Oct. 31, 1944
2,410,727	Furbish	Nov. 5, 1946
2,692,012	Cramer	Oct. 19, 1954

FOREIGN PATENTS

313,739	Switzerland	June 30, 1956