Feb. 14, 1933. G. W. BRISTOL 1,897,836

FLEXIBLE SPRING PAD

Filed Jan. 27, 1932

Fig. 1

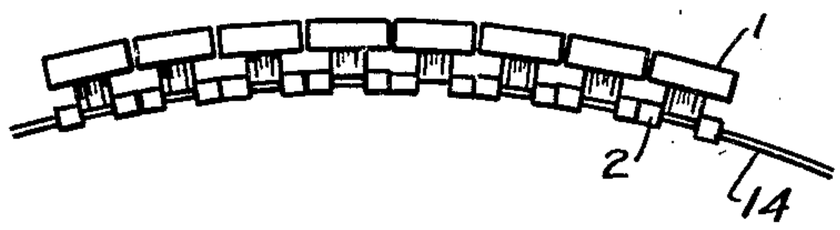


Fig. 2

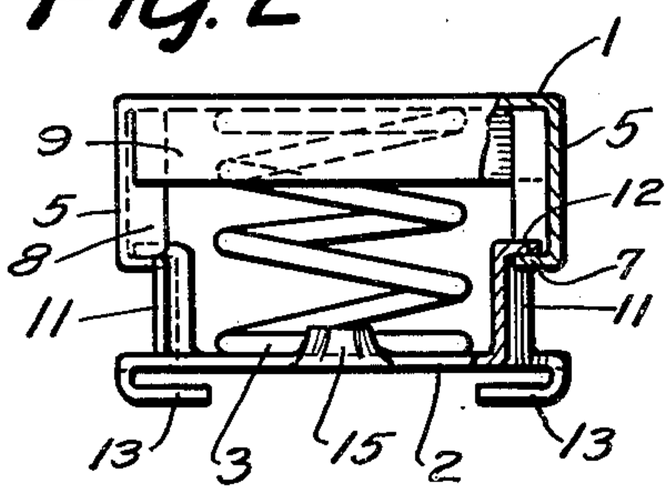


Fig. 3

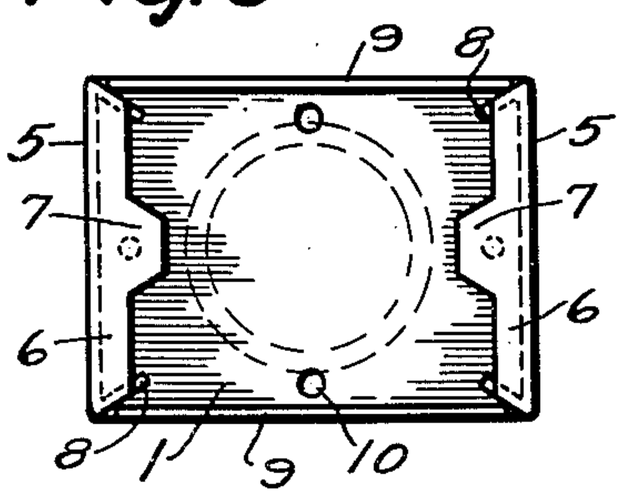


Fig. 4

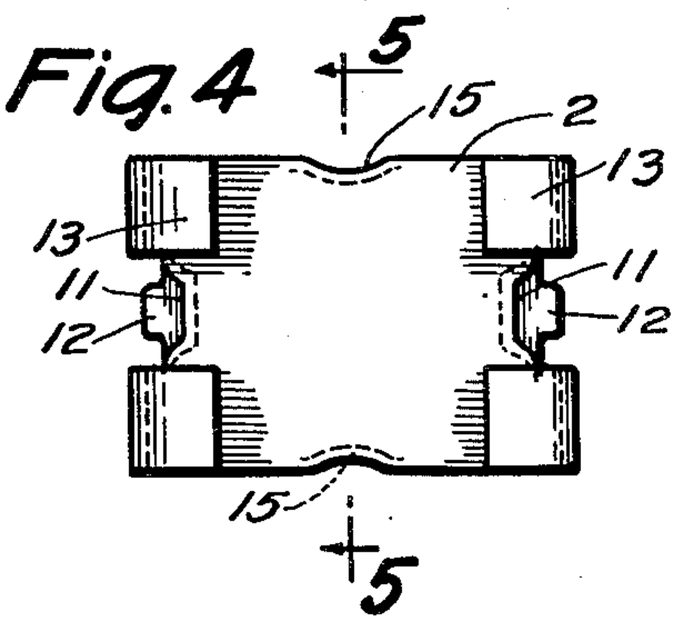


Fig. 6

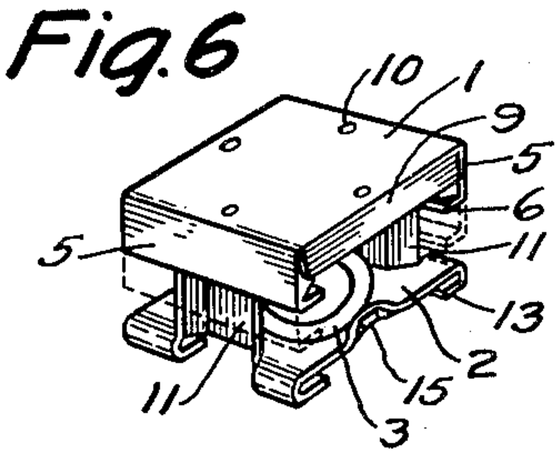
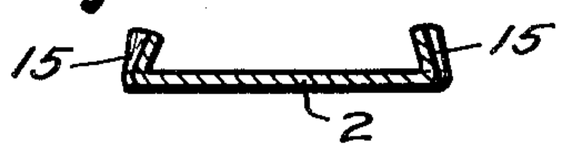


Fig. 5



INVENTOR

BY George W. Bristol

Harry Bowen ATTORNEY

Patented Feb. 14, 1933 1,897,836

UNITED STATES PATENT OFFICE

GEORGE W. BRISTOL, OF MERIDEN, CONNECTICUT

FLEXIBLE SPRING PAD

Application filed January 27, 1932. Serial No. 589,086.

The invention is an improvement in spring pads for an ironing machine or for other similar purposes in which the pad is formed with an individual cap and base held apart by a spring, and in which the parts are reinforced to prevent bending and attached at the center providing axial movement.

The object of the invention is to provide an individual pad member having parts resiliently held apart and in which the guides and stops are reinforced to prevent bending.

Another object of the invention is to provide a cap for spring pads in which the sides and edges are reinforced by engaging flanges.

Another object of the invention is to provide spring pads adapted to be installed on a curved base.

A further object of the invention is to provide a base for spring pads in which the guide members that hold the cap are made web shaped to prevent bending.

And a still further object of the invention is to provide a flexible spring pad which is selfcontained in an individual unit and of simple and economic construction.

With these ends in view the invention embodies a spring pad having a cap with downwardly extended flanges, a base with upwardly extended guides forming slide studs in which the flanges of the cap are held, and a spring, resiliently holding the cap from the base.

Other features and advantages of the invention will appear from the following description taken in connection with the drawing, wherein:

Figure 1 is a view showing the pads as they would appear in use.

Figure 2 is a side elevation of the pad with a portion broken away showing a sectional view.

Figure 3 is a view looking toward the under side of the cap.

Figure 4 is a view looking toward the under side of the base.

Figure 5 is a cross section through the base on line 5—5 of Figure 4.

Figure 6 is a view showing the pad assembled.

In the drawing the pad is shown as it would be made wherein numeral 1 indicates the cap, numeral 2 the base, and numeral 3 the spring.

The cap is made as shown with a flat piece of plate having downwardly extended ends 5 with flanges 6 at the lower ends and in the center of the flanges 6 are projections 7 which correspond with studs on the base 2. At the edges of the ends 5 are diagonal flanges 8 which bend inward as shown in Figure 3 and at the sides of the member 1 are flanges 9 that engage the outer surfaces of the flanges 8. The cap may be provided with perforations 10 which form steam outlets for the pad.

The base 2 is made with a flat piece of plate having the studs 11 extending upward at the ends and shaped as shown in Figure 4. It will be noted that these studs are formed with a back having diagonal sides which add materially to its strength and make it very strong and durable. At the upper ends of the studs 11 are projections 12 which limit the upward movement of the cap by holding the members 7 that are slidable in the studs 11. The cap is held upward from the base by the spring 3 as shown and when pressure is applied to the top of the pad the cap will move downward with the members 7 sliding downward in the studs 11. On the underside of the base 2 are clips 13 which are arranged as shown in Figures 2 and 4 so that the pads may slide on a strip of material 14 as shown in Figure 1. These clips may be of any shape or design, or arranged in any manner, or any other means may be used for holding the pads to the strips. At the edges of the base 2 are projections 15 that engage and hold the edges of the spring to locate and hold the spring in the center of the base. It will be understood that these projections may be of any other shape and formed in any other manner and also that any other means may be used for locating and holding the spring.

It will be understood that other changes may be made in the construction without departing from the spirit of the invention. One of which changes may be in the use of

other means for reinforcing the cap, another may be in the use of other means for slidably holding the cap to the base, and still another may be in the use of other means for resiliently holding the cap away from the base.

The construction will be readily understood from the foregoing description. In use the pad may be supplied as shown and assembled on strips as shown in Figure 1 and the strips may be arranged on a flat or curved pad or in any desired position. It will be noted that by holding the cap to the base with the members 7 in the studs 11 the two parts are held at one point and this point is on the center so that greater flexibility of movement will be obtained and the pads may readily be used on a curved surface of any description. The pad may also be used on flat surfaces or for any other purpose, and the pads may be held together in any other manner. It will also be noted that by forming the cap 1 with engaging flanges at the sides makes the cap and the ends thereof very strong so that it will stand hard use and wear. It will practically be impossible to bend the ends or legs 5 of the cap so that they will not bind or cause any trouble whatever. The shape of the studs on the base also provides very sturdy construction so that the wearing quality of the pad is materially improved as compared with other pads. To provide a pad in an individual unit and of the sturdy construction shown and described provides considerable advantage and makes it possible to use the pad where it receives very hard service and also makes it applicable for many other purposes.

Having thus fully described the invention what I claim as new and desire to obtain by Letters Patent, is:

1. In a spring pad of the type having a cap and a base slidably attached and held apart by a spring, continuous engaging flanges extending downward from the edges of said cap, the flanges at the ends of said cap having projections extending inward at the centers thereof, flanged studs extending upward from said base with grooves corresponding with the projections of said flanges and stops in the ends of said grooves limiting the movement of said projections said base having spring holding projections at the sides, and clips on the under side of the ends of said base, said attaching means allowing the upper surface of said cap to slope in any direction.

2. In a spring pad of the type having a cap and a base slidably attached and resiliently held apart, means attaching said cap and base at the transverse center of the ends thereof providing flexibility of movement of one in relation to the other making it possible for the upper surface of the cap to slope in any direction.

3. A spring pad comprising a base with channel shaped studs extending upward at the ends, and in the center of said ends, a cap having flanges at the ends with projections on the flanges cooperating with said studs flexibly holding said cap to the base, and a spring between said cap and base, said holding means providing flexible movement between the cap and base in all directions.

4. A spring pad comprising a base with channel shaped studs extending upward at the centers of the ends, a cap having flanges at the ends with projections on the flanges cooperating with said studs, providing a flexible connection, said studs having means engaging said projections on the flanges to limit the upward movement of the cap, and a spring between said cap and base.

5. In a spring pad of the type having a cap, a base, and a spring between the cap and base, means slidably holding the cap to the base at the center of the ends of the cap and base providing flexibility in all directions.

6. In a spring pad of the type having a cap, a base, and a spring between the cap and base, means slidably holding the cap and base together, providing a flexible connection between the cap and base, and continuous flanges around said cap reinforcing the cap and also the means holding the cap and base together.

7. A cap for spring pads or the like comprising a flat piece of material with downwardly extending ends and inwardly extending flanges at the lower ends of the ends, said ends also having diagonal flanges extending inward from the vertical sides thereof and the sides of said flat piece of material having downward extending flanges, the ends of which engage the diagonal flanges of the ends, and said flanges at the lower ends of the ends of said flat piece of material having inwardly extending projections in the centers thereof.

8. A base for spring pads or the like comprising a flat piece of material with channel shaped studs extending upward from the centers of the ends thereof, said studs having flanges in the upper ends with projections extending outward therefrom, said base having clips at the ends at the sides of said studs and on the under side, and said base having upwardly extending projections at the centers of the sides.

9. In a spring pad of the type having a cap and a base resiliently held apart by a spring, said cap having downwardly extending solid ends with inwardly extending flanges at their lower ends and projections at the centers of said flanges, said ends also having diagonal flanges extending inwardly from the vertical edges thereof and said

cap having flanges at the sides with the ends engaging said diagonal flanges, said base having upwardly extending channel shaped studs with projections at their upper ends forming stops and positioned to engage the projections at the centers of the flanges at the lower ends of the ends of the cap which are slidable in said studs, projections extending upward from the sides of said base to hold a spring thereon, and downwardly extending clips at the ends of said base.

10. In a spring pad of the type having a cap and a base resiliently held apart, means holding said cap to said base with slidable engagement providing flexibility of movement of said cap in relation to the base, said holding means located on the longitudinal axis of said cap and base.

11. In a spring pad of the type having a cap and a base resiliently held apart, vertical studs having grooves at the centers of the ends of said base, and holding means on said cap slidable in said grooves and adapted to permit flexible movement of said cap.

12. In a spring pad of the type having a cap and a base resiliently held apart, vertical studs having grooves at the centers of the ends of said base, and solid downwardly extending ends on said cap having projections slidable in said grooves providing flexibility of movement of said cap in relation to the base.

In testimony whereof he affixes his signature.

GEORGE W. BRISTOL.