Aug. 5, 1941. E. KURATH ET AL 2,251,744

SPRING CLIP

Filed May 17, 1940

Fig. 1

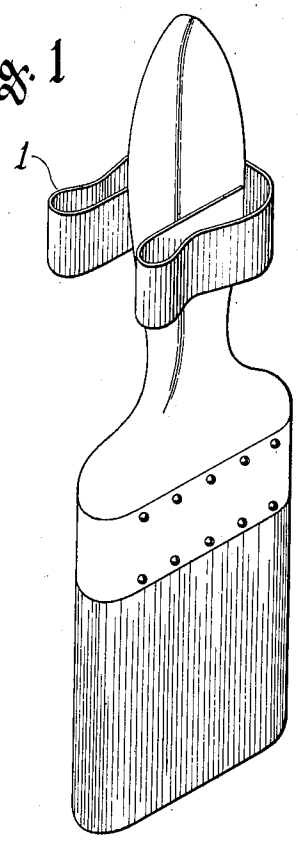


Fig. 2

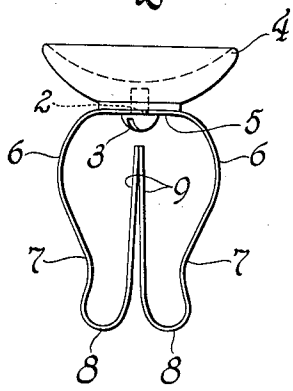


Fig. 3

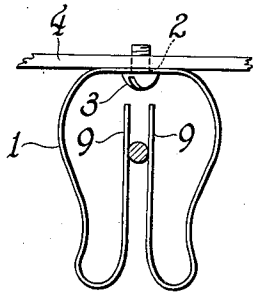


Fig. 4

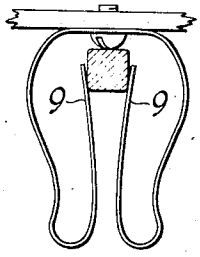


Fig. 5

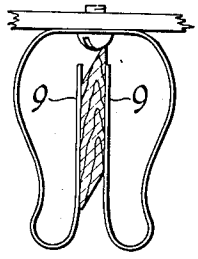
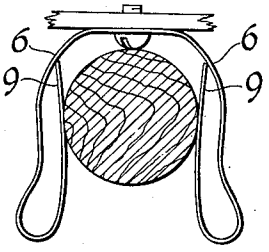


Fig. 6



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2,251,744

SPRING CLIP

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Milwaukee, Wis.

Application May 17, 1940, Serial No. 335,668

3 Claims. (Cl. 24—259)

Spring clips such as used heretofore were adapted for receiving and holding articles only of a very limited range of size and if adapted to receive objects of only small width or cross section, they would not yield enough to receive wider or thicker articles, or if the latter were forced between the gripping surfaces, the spring clips were permanently deformed so as not to hold any more thinner articles thereafter.

The present invention comprises a clip of a strip of spring material, attached to a support intermediate of its ends and having both ends bent substantially in the shape of a U, with a reverse bend at the outer leg of the U, while the extreme ends of the strip normally are substantially in contact with each other.

The accompanying drawing is illustrative of an embodiment of the invention. In the drawing

Fig. 1 shows a clip holding a brush having a substantially flat handle of great thickness relative to the size of the clip.

Fig. 2 shows the clip in its normal condition and attached to a suction cup.

Fig. 3 illustrates the clip holding a relatively thin circular object.

Fig. 4 shows the clip holding a square object of medium width.

Fig. 5 shows the clip holding a relatively thin rectangular object, such as a ruler, while

Fig. 6 shows the clip holding a cylindrical object of large diameter, such as the handle of a broom.

Referring to the drawing, the clip comprises a strip of spring material 1 which is provided at its center with a hole 2 or other means to enable its being fastened by means of a screw 3 to a suction cup 4 or other support.

The central part of the strip is substantially flat to form a base 5 with which it rests against the support 4. At each side of the central portion the strip is upturned inwardly through an arc 6 of somewhat more than 90 degrees the radius of the bend being substantially half of the extreme transverse dimension of the clip. The inward bend is followed by reverse or outward bend 7 of relatively large diameter but small arc, and the latter in turn is followed by an inward bend 8 of relatively small radius and an arc of approximately 180 degrees. The ends of the strip are continued as substantially straight portions 9 to a point close to the center of the base 5. The radii and arcs of the bends 6, 7 and 8 are such that the two ends of the portions 9 of the springs are biased and urged toward each other and that the portions 9 in their normal position enclose a small angle having its apex at their ends.

It will be noted that the arrangement shown gives the clip great flexibility and at the same time great gripping power for objects of greatly differing size and shape. While normally the ends of the clip slightly diverge outwardly from the base, they assume a parallel position if a rectangular object is forced therebetween as shown in Fig. 5, while other objects may be moved toward the inside so as to abut against the base 5 or the fastening means for the clip, so that the ends converge outwardly as shown in Figs. 4 and 6 and thus prevent the articles from slipping out of the clip. In case of very large objects the ends 9 of the strip abut the inside of the bends 6 as shown in Fig. 6, whereby the pressure against the object is increased and the ends 9 are deflected from their normal shape in such a way as to hold the object securely in the clip.

From the foregoing it will be observed that the clip of the present invention lends itself to use for supporting a great variety of objects of a great range in shape and weight. Thus it is applicable to household and office devices, laboratory instruments, display boards and many other uses.

What we claim as new and desire to secure by Letters Patent is:

1. A spring clip, comprising a length of resilient material, its two halves being symmetrical relative to each other, each half having a first section extending from the center through an arc somewhat greater than 90 degrees, the adjoining section extending through an arc of less than 90 degrees in the reverse direction and a third section extending through an arc of substantially 180 degrees in the first named direction, the extreme ends of said halves being straight and converging towards each other at an angle whose apex is adjacent to the center of the clip.

2. A spring clip comprising a strip of resilient material bent symmetrical relative to its transverse center line, the total bend of each half covering an arc of substantially 270 degrees, and comprising a first section extending from the center to form an arc somewhat greater than 90 degrees, the adjoining section extending in the reverse direction through an arc of less than 90 degrees and a third section extending through an arc of substantially 180 degrees in the first named direction, the extreme ends of said halves being straight and normally converging towards each other at an angle whose apex is adjacent to the center of the clip.

3. A spring clip comprising a strip of resilient

material bent symmetrical relative to its transverse center line, each half having a first section extending from the center through an arc somewhat more than 90 degrees and having a radius substantially equal to half the width of said clip, the adjoining section extending through an arc of less than 90 degrees in the reverse direction and a third section extending through an arc of substantially 180 degrees in the first named direction, the extreme ends of said halves being straight and normally converging towards each other at an angel whose apex is adjacent to the center of the clip.

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