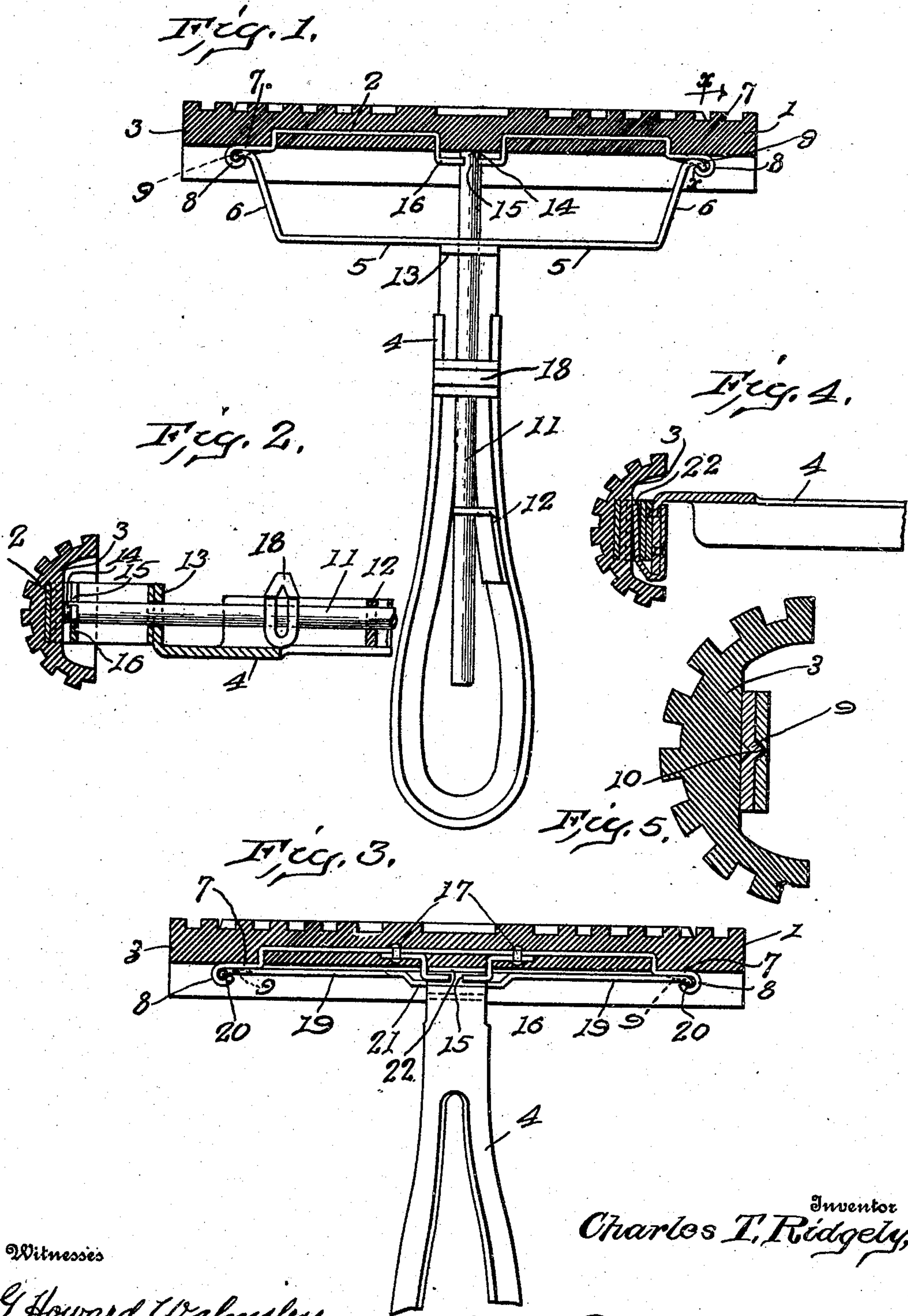


C. T. RIDGELY.
GRAINING DEVICE.

APPLICATION FILED OCT. 2, 1908.

930,690.

Patented Aug. 10, 1909.



Witnesses

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CHARLES T. RIDGELY, OF SPRINGFIELD, OHIO.

GRAINING DEVICE.

No. 930,690.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES T. RIDGELY, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Graining Devices, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to graining devices such as are employed to impart to wooden surfaces the appearance of the natural grain of the wood.

The object of the invention is to provide a device of this character in which the body portion will be readily detachable from the handle or supporting portion thereof, thereby enabling the body portion, when worn out, to be discarded without discarding the handle and the operating mechanism, and further, permitting different handles to be employed with the same body portion, thus accommodating the device to different kinds of work.

A further object of the invention is to provide easily operated and conveniently located means for imparting a longitudinal curve to the body portion to adjust the device for use on either concave or convex surfaces; and further, to so construct and arrange the several parts of the device as to provide a device of this kind which will be compact in structure, strong and durable and which can be manufactured at a comparatively low cost.

With these objects in view my invention consists in certain novel features and in certain combinations and arrangements of parts hereinafter to be described, and then more particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation, partly in section, of a device embodying my invention; Fig. 2 is a transverse, vertical sectional view taken centrally through such a device; Fig. 3 is a side elevation, partly in section, of the device provided with a modified form of handle; Fig. 4 is a transverse, vertical sectional view, taken centrally through Fig. 3; and Fig. 5 is a transverse, sectional view, taken on the line *x x* of Fig. 1.

In these drawings, I have illustrated the preferred form of my invention and have shown the same as comprising a resilient body portion 1 which may be of the ordinary construction and is here shown as substan-

tially semicircular in cross section and having its outer convex surface of the usual configuration to form a graining surface. The desired degree of resiliency may be imparted to the body portion 1 in any desired manner, but I prefer the manner here shown which consists in providing a spring 2 arranged longitudinally of the body portion 1 and firmly secured thereto. In the present instance this spring 2 is embedded in the body portion itself which may be thickened, as shown at 3, to accommodate the same. A handle 4 is provided with oppositely extending arms 5 adapted to be secured to the concave side of the body portion 1 near the opposite ends thereof in such a manner that a lateral movement may be imparted thereto. In the present instance the arms 5 are shown as comprising a single piece of resilient metal secured near its center to the handle 4 and having its outer portions bent away from the handle at an obtuse angle to the body portion of the arm, as shown at 6. The ends of the bent-over portions 6 of the arms 5 may be secured to the body portion in any suitable manner. I have here shown the body portion as provided with clips 7 rigidly secured to the body portion 1 near the opposite ends thereof, preferably arranged flat against said body portion and having their outer end portions bent upwardly and inwardly, as shown at 8, and forming guideways adapted to receive the ends of the bent-over portions 6 of the arms 5 of the handle, which ends are bent outwardly, as shown, to enter said guideways and cooperate with the upwardly bent ends of the clips 7. The clips may be secured to the body portion 1 in any suitable manner, but, in the present instance, I have shown these clips as comprising the upturned ends of the spring 2, which ends extend beyond the inner or concave surface of the body portion and are preferably bent upwardly and inwardly, as described. As stated, the arms 5 are of resilient material and the arrangement of the end portions 6 thereof is such that when in engagement with the clips 7 they will be under tension and will be held firmly in engagement with the clips. I also prefer to provide suitable means to prevent the handle from moving transversely to the body portion when the upturned ends of the arms of the handle have been inserted in the clips 7. To this end I have provided the clips 7 each with a projection of longitudinal rib 9

adapted to engage a recess 10 formed in the upturned end of the adjacent arm 5. Thus it will be seen that the arms 5 of the handle 4 and the clips 7 which are secured to the body portion 1 form two part fasteners which are readily separable to permit the handle to be detached from the body portion.

Suitable operating means is mounted in a convenient position on the handle 4 for imparting a longitudinal curve to the body portion 1. This means, in the present instance, comprises a rod 11 slidably mounted in apertured lugs 12 and 13 carried by the handle 4. This rod may be connected to the body portion in any suitable manner, but, in the present instance, I have shown the same with its opposite side portions cut away to form a head 14 adapted to engage a slot 15 formed in the horizontal portion of a substantially U-shaped clip 16 which is rigidly secured to the body portion 1. This U-shaped clip 16 may be secured to the body portion in any suitable manner, and, in Figs. 1 and 2 of the drawings, I have illustrated the same as formed integral with the spring 2 by bending outwardly the central portion of that spring to form a clip. In Figs. 3 and 4 I have shown the U-shaped clip 16 as formed of a separate piece of material and secured to the spring 2 by rivets 17. The slidable rod 11 may be actuated in any suitable manner, but I have shown the same as provided with a thumb piece 18 rigidly secured thereto in such a position as to be within convenient reach of the thumb or finger of the operator when the handle 4 is grasped in the hand, thus enabling the rod 11 to be readily moved in either direction to impart a longitudinal curve to the body portion in the desired direction.

In Figs. 3 and 4 of the drawings I have shown a modified form of handle adapted to be used when the surface to be grained is flat and it is desired to hold the body portion 1 against curvature. In this form of the device the handle 4 is provided with oppositely extending arms 19 which, as in the case of the arms 5, are formed of a single piece of material secured to the inner end of the handle 4 and are provided at their outer ends with upturned portions 20 adapted to cooperate with the inwardly turned ends 8 of the clips 7. The oppositely extending arms 19 lie close to the inner surface of the body portion 1 and are bent upwardly near the central portion thereof, as shown at 21, to accommodate the U-shaped clip 16. The handle 4 is secured to the outwardly bent portion 21 and a finger 22 is secured to the handle 4, extending transversely to the arms 19 and is adapted to enter the space lying between the horizontal portion of the U-shaped clip 16 and the body portion 1, thus firmly securing the handle

to the body portion of the device. The clips 7 are provided with the projections or ribs 9, as in the form shown in Figs. 1 and 2, and the upturned ends 20 are provided with the cooperating recesses.

The operation of the device will be readily understood from the foregoing description and it will be apparent that I have provided a graining device of this character which will be readily actuated to impart a longitudinal curve thereto, thereby adapting the same to either concave or convex surfaces; that the body portion of the device is readily detachable from the handle, thus enabling the body portion or graining device proper to be renewed when worn out without the necessity of discarding the handle, and further, permitting different styles of handles to be secured to the body portion to accommodate the same to different classes of work. Further, it will be apparent that the device is of a very simple character; and that the operating mechanism is conveniently located and may be actuated either by the thumb or a finger of the hand which grasps the handle.

I wish it to be understood that I do not desire to be limited to the details of construction shown and described, for obvious modifications will occur to a person skilled in the art. For instance the clips which connect the arms of the handle to the body portion are capable of a wide variation from the form here shown without departing from the spirit of the invention.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A device of the character described comprising an elongated body portion having a graining surface on one side thereof, a handle for said body portion, and separate means mounted on said handle and connected to said body portion for imparting a longitudinal curve to said body portion.

2. A device of the character described comprising an elongated body portion having a graining surface on one side thereof, a handle, means for detachably connecting said handle to said body portion, and means mounted on said handle for imparting a longitudinal curve to said body portion.

3. A device of the character described comprising an elongated body portion having a graining surface on one side thereof, a handle having oppositely extending arms, means for connecting the outer ends of said arms to said body portion, and means carried by said handle for imparting a longitudinal curve to said body portion.

4. A device of the character described comprising an elongated body portion having a graining surface on one side thereof, a handle, a two part separable fastener, one part of said fastener being secured to said

body portion and the other part to said handle, and means for imparting a longitudinal curve to said body portion.

5 5. A device of the character described comprising an elongated body portion having a graining surface on one side thereof, clips secured to said body portion, a handle, arms carried by said handle having parts adapted to engage said clips, and means for
10 imparting a longitudinal curve to said body portion.

6. A device of the character described comprising an elongated body portion having a graining surface on one side thereof, clips secured to said body portion and having
15 guideways, a handle, arms carried by said handle and having parts adapted to enter said guideways, means for retaining said parts in said guideways, and means for
20 imparting a longitudinal curve to said body portion.

7. A device of the character described comprising an elongated body portion having a graining surface on one side thereof, a spring arranged longitudinally to said
25 body portion and secured thereto, a handle having oppositely extending arms, means for detachably connecting said arms to said body portion and means carried by said
30 handle for imparting a longitudinal curve to said body portion.

8. A device of the character described comprising an elongated body portion having a graining surface on one side thereof, a spring arranged longitudinally to said
35 body portion and secured thereto, a handle having oppositely extending arms, means for detachably securing said arms to said spring and means carried by said handle for
40 imparting a longitudinal curve to said body portion.

9. A device of the character described comprising a body portion, clips secured thereto and having their end portions turned
45 upwardly and inwardly, projections carried by each of said clips, a handle, and resilient arms carried by said handle, having their outer ends turned outwardly and adapted to engage the upwardly and inwardly turned
50 portions of said clips and provided with recesses adapted to receive said projections.

10. A device of the character described comprising a body portion having a graining surface, a handle having arms extending
55 on opposite sides thereof, means for securing said arms to said body portion near the outer ends thereof and on the side opposite said graining surface, and means for securing said handle to said body portion at a
60 point between the fastening means for said arms and in substantial alinement therewith.

11. A device of the character described comprising an elongated body portion, having a graining surface on one side thereof,
65 a handle, arms extending from the opposite

sides of said handle, means for securing said arms to said body portion, a clip carried by said body portion near the center thereof and in substantial alinement with said securing means, and a part carried by said handle and adapted to engage said clip. 70

12. A device of the character described comprising a body portion, a flat spring embedded therein and having its end portions turned at an angle thereto and extending
75 beyond the inner surface of said body portion, a handle, arms arranged on the opposite sides of said handle and having their ends adapted to be secured to the end portions of said spring. 80

13. A device of the character described comprising a body portion, a flat spring embedded therein, a U-shaped member carried by said spring and extending beyond the
85 inner surface of said body portion, the end portions of said spring extending beyond said inner surface and forming clips, a handle, arms extending from the opposite sides thereof and adapted to engage said clips, and a part carried by said handle adapted
90 to engage said U-shaped member.

14. In a device of the character described, the combination, with an elongated body portion having a graining surface on one side thereof, a handle, and arms extending
95 from the opposite sides of said handle and connected to said body portion, of means carried by said handle for imparting a longitudinal curve to said body portion.

15. In a device of the character described, the combination, with an elongated body portion having a graining surface on one side thereof, a handle, and arms extending
100 from the opposite sides of said handle and connected to said body portion, of means movably mounted on said handle and connected to said body portion between said arms, whereby a longitudinal curve may be
105 imparted to said body portion.

16. In a device of the character described, the combination, with an elongated body portion having a graining surface on one side thereof, a handle, and arms extending
110 from the opposite sides of said handle and connected to said body portion, of a part slidably mounted on said handle and having one end connected to said body portion between said arms, whereby the movement of said part will impart a longitudinal curve to
115 said body portion. 120

17. In a device of the character described, the combination, with an elongated body portion having a graining surface on one side thereof, a handle, and arms extending
125 from the opposite sides of said handle and connected to said body portion, of a rod slidably mounted on said handle, and a retaining member carried by said body portion between said arms and adapted to be engaged by said rod. 130

18. In a device of the character described, the combination, with a body portion, a handle, and arms extending from the opposite sides of said handle and connected to said body portion, of a clip carried by said body portion having a slot therein, a rod slidably mounted on said handle having a reduced portion adapted to enter said slot.

19. In a device of the character described, the combination, with a body portion, a handle, and arms extending from the opposite sides of said handle and connected to said body portion, of a clip carried by said body portion having a slot therein, a rod slidably mounted on said handle and having a reduced portion adapted to enter said slot, and a thumb piece secured to said rod.

20. In a device of the character described, the combination, with a body portion, a handle, and arms extending from the opposite sides of said handle and connected to said body portion, of a U-shaped clip secured to said body portion and having its horizontal portion extending beyond the surface of said body portion and having a slot extending from one edge thereof, and a rod slidably mounted on said handle and having a reduced portion adapted to enter said slot.

21. In a device of the character described, the combination, with a body portion, a clip secured to the opposite ends thereof, and a U-shaped clip secured near the center thereof and having a slot extending transversely to said body portion, of a handle, arms extending from the opposite sides thereof and adapted to be detachably secured to said clips, and a rod slidably mounted on said handle and having a reduced portion adapted to engage the slot in said U-shaped clip.

22. In a device of the character described, the combination, with a body portion, a spring embedded in said body portion having a U-shaped central portion extending beyond the inner surface of said body portion and having its opposite ends extending beyond the inner surface of said body portion

and bent upwardly and inwardly to form guideways, of a handle, arms extending from the opposite sides of said handle and having their ends turned outwardly to engage said guideways, and a rod slidably mounted on said handle and having its inner end detachably connected to the U-shaped portion of said spring.

23. A device of the character described comprising an elongated resilient body portion, clips secured to said body portion on opposite sides of the center thereof, a handle having arms connected to said clips, and means carried by said handle for imparting a longitudinal curve to said body portion.

24. A device of the character described comprising an elongated resilient body portion, clips secured to said body portion near the opposite ends thereof, a handle having oppositely extending arms connected to said clips, and means carried by said handle for imparting a longitudinal curve to said body portion.

25. A device of the character described comprising a body portion, a flat spring embedded therein and extending longitudinally thereto, a handle, arms arranged on the opposite sides of said handle having their ends adapted to be connected to the end portions of said spring, and means for imparting a longitudinal curve to said body portion.

26. A device of the character described comprising an elongated body portion having a graining surface on one side thereof, a handle, arms extending from the opposite sides of said handle and connected to said body portion, and a rod slidably mounted on said handle and connected to said body portion.

In testimony whereof, I affix my signature in presence of two witnesses.

CHARLES T. RIDGELY.

Witnesses:

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EDWARD L. REED.