J. E. BURNS.

MARKING DEVICE.

APPLICATION FILED MAY 20, 1916.

1,242,918. Patented Oct. 16, 1917.

Fig. 1.

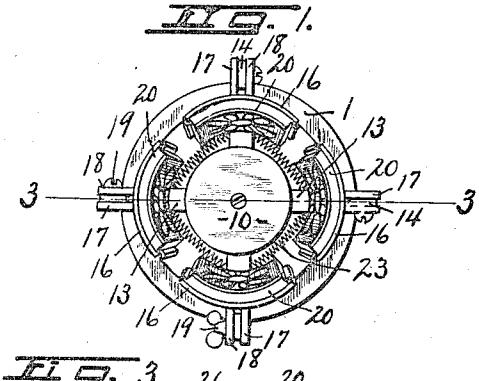


Fig. 2.

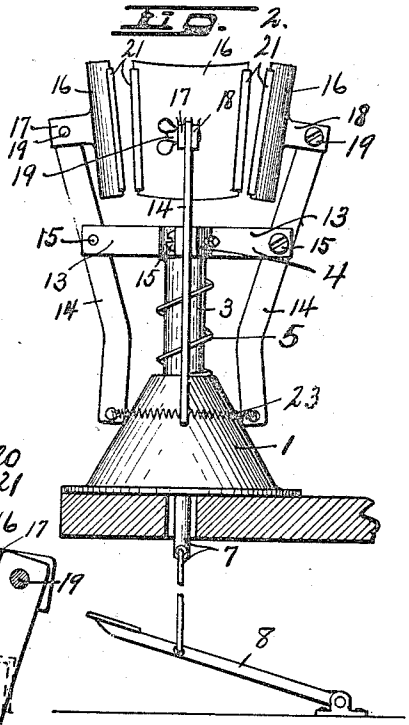


Fig. 3

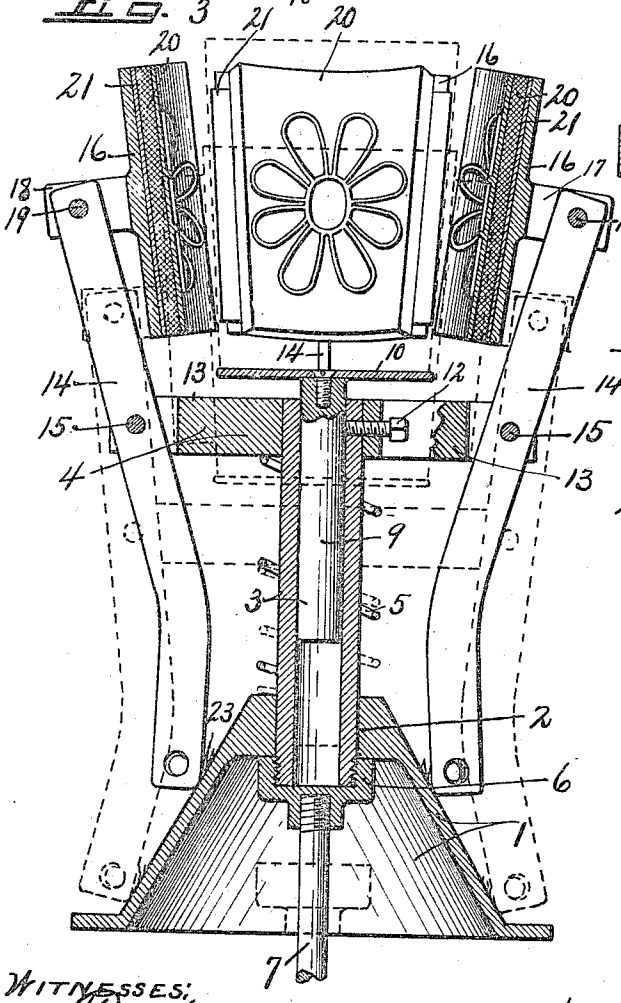


Fig. 4.

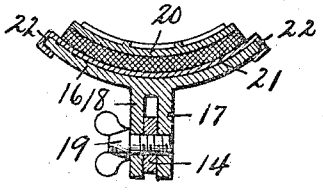
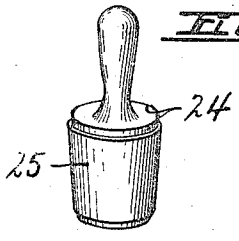


Fig. 5



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MARKING DEVICE.

1,242,918. Specification of Letters Patent. Patented Oct. 16, 1917.

Application filed May 20, 1916. Serial No. 98,997.

To all whom it may concern:

Be it known that I, JOSEPH E. BURNS, a citizen of the United States of America, and resident of Canastota, in the county of Madison, in the State of New York, have invented new and useful Improvements in Marking Devices, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to certain improvements in marking devices, and more particularly to marking devices for applying designs to glassware and the like, preliminary to the formation of such design upon the ware by cutting, etching or like means.

The primary object of the invention is to produce a device of simple construction and easy operation by which a design of any predetermined form or configuration may be accurately, efficiently, and rapidly applied or transferred, as by inking or similar means, to glassware or the like.

A further object is to render such device applicable for use with various shapes of glassware and susceptible of use with such ware of any predetermined form or shape.

Another object relates to the utilization of the device in applying various designs by rendering the design-carrying element readily movable and permitting the easy insertion or application of any desired design element.

Other objects relate to the specific construction and method of operation of the parts as will more fully appear from the descriptive matter hereinafter contained, taken in connection with the accompanying drawings in which—

Figure 1 is a top plan view of the device.

Fig. 2 is a side elevation of the same.

Fig. 3 is a cross section on line 3—3, Fig. 1.

Fig. 4 is a horizontal section through one of the segmental design-carrying elements and its mounting means.

Fig. 5 is a view of the device used for applying ink to the design-carrying elements.

The invention, as shown, comprises a hollow frusto-conical base —1— tapering upwardly and provided with a vertical passageway or opening —2— in which a hollow post —3— is slidable. The post —3— is provided at its upper end with a spider-like table —4— which may be integral with the post or, as shown, may be removably mounted thereon and secured thereto in any suitable manner, as by set screws not shown.

A spring —5— is coiled about the post —3— and is confined between the spider —4— and the upper end of the frusto-conical base —1— to normally raise the post —3— and table —4— to the limit of its upward movement with reference to the base —1—, and this upward movement may be limited in any suitable manner, this specific illustration involving the use of an internally threaded cap —6— removably engaged with the externally threaded end of the post —3—, and a connecting rod —7— has one end externally threaded and engaged with an internally threaded recess in the cap —6— and its opposite end pivotally engaged with a pedal —8— for moving the post —3— downwardly relatively to base —1— against the action of the spring —5— for a purpose hereinafter described.

These connections described may be made in any suitable manner, the particular construction shown being illustrative merely of one method of accomplishing this end.

A shaft —9— slidably positioned in the hollow post —3— removably carries at its upper end a platform —10— and by movement of the shaft —9— the platform —10— may be readily adjusted with respect to the spider or table —4— and may be held in any desired position of adjustment, as by a set screw —12—, although any other suitable or desirable means may be used.

The spider —4—, in this specific illustration, is provided with four (4) radial arms —13— and each arm is provided with a radial seat or groove for receiving the intermediate portion of a bar —14—, which bars are pivotally connected to their respective arms by any suitable means, as thumb screws or bolts —15—.

These arms —14— may, as shown, be bent or bowed inwardly and pivotally carry at their upper ends segmental plaques —16—, and preferably the plaques are provided with rearwardly projecting spaced flanges —17— and —18— adapted to receive between them the upper end of the respective bar —14—, and the bar and the flanges in this position are provided with registering openings for the reception of any suitable means, as preferably a thumb screw —19—, adapted to have a threaded engagement with

the internally threaded opening in the flange —18— for frictionally holding the bar and plaque in any desired relative position of adjustment.

Each plaque is adapted to removably carry a segmental design-embodying element —20— each element comprising a flexible stamping portion or element of suitable material, such as rubber, having a design or configuration formed thereon and a resilient backing portion or element of suitable material such as "sponge rubber" or the like, permitting the stamping element to readily yield under pressure to conform to the shape of the ware to be marked permitting the marking of designs upon somewhat uneven surfaces without any danger of breaking the ware. As illustrative of one attaching means the element embodies a metallic backing —21— having its opposite edges reversely bent to form channels —22— in which the edges of a plaque are adapted to be seated so that the design-carrying element may be placed upon and removed from the plaque by a sliding movement of the flanges —22— along the opposite edges of a plaque —16—.

The lower ends of the bars —14— normally rest upon the conical base —1—, preferably near its upper end, and are connected by a spring or springs —23— normally tending to prevent the spreading of said ends and retracting them as they are moved upwardly along with the post —3— by the action of spring —5— to hold them at all times in substantial contact with the conical base, thereby causing a spreading of the segmental plaques —16— and their design-carrying elements, permitting the insertion of a suitably shaped dish, in this specific instance as a tumbler, between the design-carrying elements.

When the tumbler has been placed upon the platform —10—, the pedal —8— may be moved downwardly to draw the shaft —3—, arms —14— and platform —10— downwardly and the plaques are moved inwardly by the spreading of the lower ends of the bars —14— as they move downwardly along the conical base —1— until the design-carrying elements upon the plaques are brought into contact with the tumbler to mark the same, and for the purpose of readily applying ink to the configuration upon the design-carrying elements, an inking device —24— is provided which embodies an inking pad —25—.

This device is inserted between the design-carrying elements and may be allowed to rest upon the platform —10— and the ink is applied to the configuration upon the design-carrying elements by moving the pedal —8— downwardly to force the plaques and their design-carrying elements into contact with the inking pad —25—. When the pedal —8— is released, the plaques are automatically spread and the inking device may be removed and the ware to be marked inserted.

It will be noted that each of the plaques is independently pivoted upon an arm —14— and is preferably adjustably secured to such arm by thumb screws —19— permitting an easy and rapid tilting of the plaques to accommodate various shapes of glassware.

And it will also be understood that the shape of plaques here shown is illustrative merely of one shape adapted for marking certain particular shapes of ware, the essential of this portion of the device being a sectional marking device, the portions of which are adapted to be retracted and thereby brought into contact with the ware to be marked.

It will also be apparent that the retraction or inward movement of the plaques may be accomplished by pressing downwardly upon the article of glass or other ware that may be seated upon the platform —10—, although the pedal —8— is preferably embodied for this purpose.

Although I have shown and described one specific construction, form and arrangement of parts as adapted for certain particular shapes of ware, I do not desire to limit myself to any particular form, shape or arrangement of the parts, as many changes may be made in each or all of the same without departing from the spirit of this invention as set forth in the appended claims.

What I claim is:—

1. In a device for marking glassware and the like, a table, a plurality of bars pivotally carried by the table, a sectional die comprising a plaque carried by each bar, a platform adjustably carried by the table for supporting an article to be marked between design-carrying elements, and means for simultaneously moving the bars to contract the die and bring the design-carrying elements into contact with said article.

2. In a device for marking glassware and the like, a base, a table vertically movable relatively to the base, spring means for elevating the table, a plurality of bars pivoted on the table, design-embodying elements carried by said bars, and means for simultaneously moving said bars about their pivots upon depression of said table relatively to the base.

3. In a device of the class described, a plurality of vertically movable bars, a plaque mounted upon each bar, and a resilient die-embodying element carried by each plaque.

4. In a device of the class described, a plurality of vertically movable pivoted bars, a plaque supported from each bar, and a resilient die-embodying element carried by each plaque.

5. In a device of the class described, a plurality of vertically movable pivoted bars,

a plaque pivotally mounted upon each bar, and a resilient die-embodying element carried by each plaque.

6. In a device of the class described, a plurality of vertically movable pivoted bars, a plaque supported from each bar, a die-embodying element carried by each plaque, and means for moving said bars about their pivots to move the plaques inwardly.

7. In a device of the class described, a plurality of vertically movable pivoted bars, a plaque pivotally mounted upon each bar, a die-embodying element carried by each plaque, and means for moving said bars about their pivots to move the plaques inwardly.

8. In a device of the class described, a plurality of vertically movable pivoted bars, a die-carrying plaque supported from each bar, and a cone base for moving the bars about their pivots.

9. In a device of the class described, a plurality of vertically movable pivoted bars, a die-carrying plaque pivotally mounted upon each bar, and a cone base for moving the bars about their pivots.

10. In a device of the class described, a plurality of vertically movable pivoted bars, a die-carrying plaque supported from each bar, a cone base along which said bars are slidable, and resilient means for holding said bars in contact with said cone base.

11. In a device of the class described, a plurality of vertically movable pivoted bars, a die-carrying plaque pivotally mounted upon each bar, a cone base along which said bars are slidable, and resilient means for holding said bars in contact with said cone base.

12. In a device of the class described, a cone base, a table supported from the base, a plurality of bars pivoted to said table and having one of their ends in contact with said cone base, die-carrying plaques mounted upon the other ends of said bars.

13. In a device of the class described, a cone base, a table supported from the base, a plurality of bars pivoted to said table and having one of their ends in contact with said cone base, die-carrying plaques pivotally mounted upon the other ends of said bars.

14. In a device of the class described, a cone base, a table having a portion engaged with the base and movable relatively thereto, a spring between the table and the base, a plurality of bars pivoted to said table and having one of their ends in contact with said cone base, die-carrying plaques mounted upon the other ends of said bars.

15. In a device of the class described, a cone base, a table having a portion engaged with the base and movable relatively thereto, a spring between the table and the base, a plurality of bars pivoted to said table and having one of their ends in contact with said cone base, die-carrying plaques pivotally mounted upon the other ends of said bars.

16. In a device of the class described, a cone base, a table having a portion engaged with the base and movable relatively thereto, a spring between the table and the base, a pedal for moving the table relatively to the base, a plurality of bars pivoted to said table and having one of their ends in contact with said cone base, die-carrying plaques pivotally mounted upon the other ends of said bars.

17. In an apparatus for marking glassware and the like, a table, a plurality of arms carried by the table, a resilient die-embodying element carried by each arm and an adjustable platform carried by the table and movable between the upper surface of the table and the lower edge of the die-embodying element.

18. In a device for marking glassware and the like, a base, a table carried by the base, a plurality of bars pivoted at their intermediate portions upon the table, a sectional die comprising a separate plaque carried by the upper end of each bar and positioned above the table, a flexible design-carrying element resiliently supported by each plaque, and means for simultaneously spreading the lower ends of said bars to contract the die.

19. In a device for marking glassware and the like, a base, a table carried by the base, a plurality of bars pivoted at their intermediate portions upon the table, a sectional die comprising a separate plaque carried by the upper end of each bar and positioned above the table, a flexible design-carrying element resiliently supported by each plaque, means for simultaneously spreading the lower ends of said bars to contract the die, and spring means for automatically contracting the lower ends of said bars to space the plaques.

In witness whereof I have hereunto set my hand this 18th day of May, 1916.

JOSEPH E. BURNS.

Witnesses:
E. A. THOMPSON,
ALICE M. CANNON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."