July 5, 1949. C. W. SCOTT ET AL 2,475,524

PRINTING WHEEL CONSTRUCTION

Filed Aug. 15, 1946

Fig. 1.

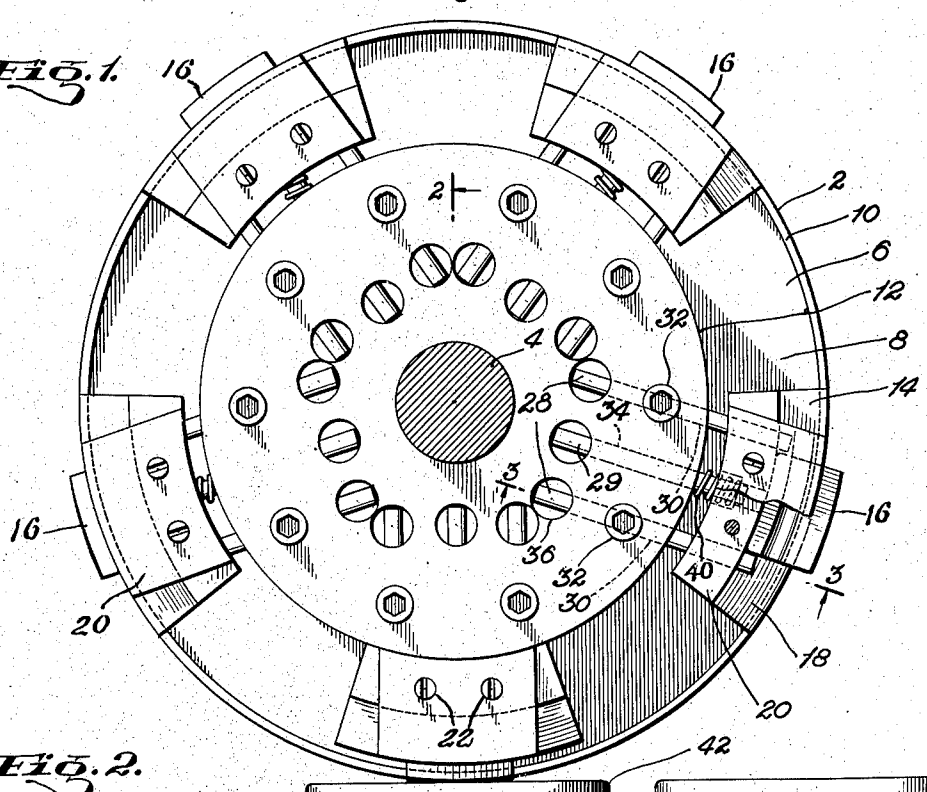


Fig. 2.

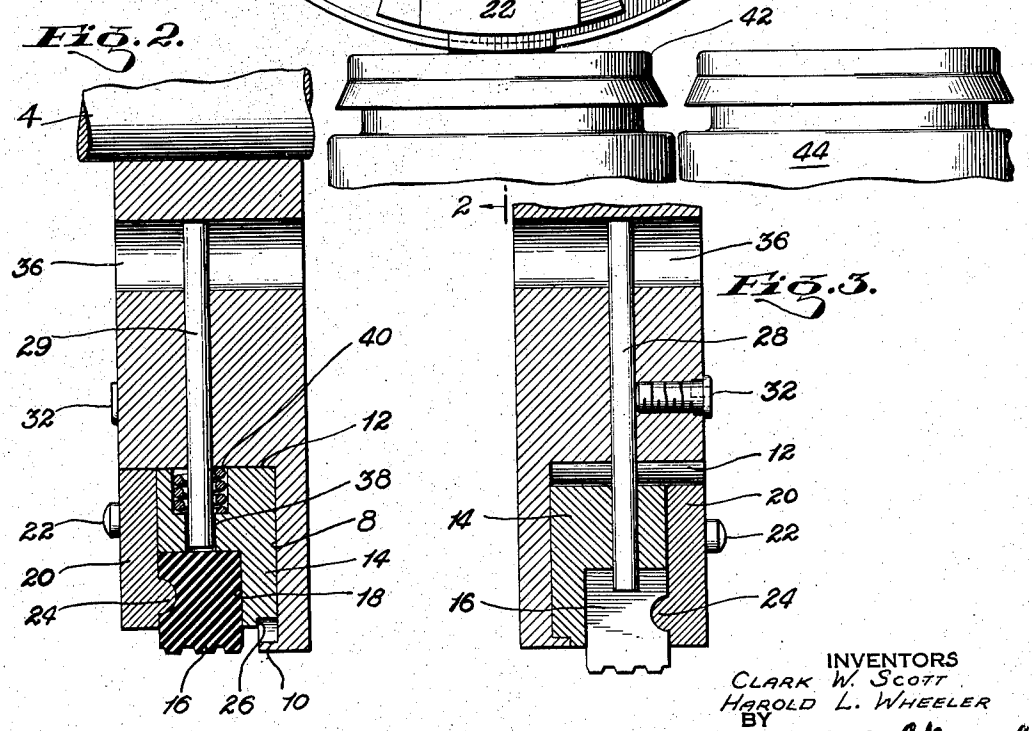


Fig. 3.

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PRINTING WHEEL CONSTRUCTION

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3 Claims. (Cl. 101—375)

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The present invention relates to marking devices, and has special reference to devices for marking the tops of glass jars and cans.

The principal object of the invention is to provide a device of this character which is simple in construction, efficient in operation, and in which the parts thereof may be easily assembled and taken apart.

The several features of the invention, whereby this and other objects may be attained, will be readily understood from the following description and accompanying drawings, in which:

Figure 1 is a side view, partly in section, and with parts broken away, of a marking device embodying the features of the invention in their preferred form, the device being shown operating on the closures for glass jars as they are being fed one behind the other;

Figs. 2 and 3 are sectional views, partly in elevation, taken respectively on the lines 2—2 and 3—3 of Fig. 1.

My improved marking device as illustrated in the drawings comprises a wheel 2 which may be carried by a shaft 4. One side of the wheel is provided with an annular channel or groove 6 which has a side wall 8, an inwardly directed peripheral flange 10, and an inner peripheral wall 12.

Mounted in the groove 6 are a plurality of slides 14 which are equally spaced apart about the periphery of the wheel and carry marking elements 16 which may be stamps of rubber or other material. Each marking element 16 is mounted in an arcuate groove 18 in the associated slide 14, and is held in place by means of a clamping plate 20 which is secured to the slide by means of screws 22. Each plate 20 has an inwardly directed transverse rib 24 which is received in a groove in the marking element.

Each slide 14 is adapted to be moved toward and from the axis of the wheel between the inner peripheral wall 12 of the groove 8 and the flange 10. The flange 10 serves as a stop to limit the outward movement of the slide. One of the outer edges of each slide 14 is provided with a rabbeted groove 26, the peripheral wall of which being adapted to abut against the inner side of the flange 10, and when the slide 14 is projected outwardly so as to engage the flange 10, the remaining portion of the outer end of the slide is substantially flush with the outer periphery of the flange 10.

Each slide 14 is guided by means of three spaced pins 28 and 29. The inner portions of the two pins 28 are received in apertures 30 in the

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central portion of the wheel and are held in place by means of set screws 32. The intermediate guide pin 29 extends through an aperture 34 in the central portion of the wheel. Access may be had to the inner ends of the three pins 28 and 29 of each slide through holes 36. The outer ends of the fixed pins 28 extend through apertures in the slide 14, and the outer end portion of the intermediate pin 29 extends through an aperture 38 in the slide. The inner portion of said aperture is enlarged to provide a recess to receive a spring 40 coiled about the pin and interposed between the shouldered bottom of the recess and the inner peripheral wall 12 of the groove 8.

With this construction, it will be apparent that each slide may be easily mounted on the marking wheel by positioning it in the groove 8, then slipping the pins 28 and 29 through the proper apertures in the slide and apertures in the wheel, and securing the outer pins in position by means of the set screws 32. Each marking element 16 may be easily removed and replaced upon removing the associated clamping plate 20. Any desired length marking element may be secured in the slide.

In Fig. 1 the device is shown marking the date on the tops of metal caps 42 of glass jars 44. The jars are fed at the same peripheral speed and in the same direction as the rotation of the marking wheel. As each marking element comes in contact with a cap it freely adjusts itself to the height of the jar, and thus the several marking elements apply substantially uniform pressure to the caps as they effect the marking thereof irrespective of variations in the height of the jars. Each marking element is accurately and smoothly guided by its slide and the guide pins 28 and uniform results are insured.

As will be evident to those skilled in the art, our invention permits various modifications without departing from the spirit thereof or the scope of the appended claims.

What we claim is:

1. In a marking device of the class described, a rotatable wheel having an annular channel in one side thereof providing a central hub portion and a peripheral flange, a plurality of spaced slides mounted in said channel and radially movable between said hub portion and said flange, each slide having an arcuate groove concentric with the axis of the wheel having an inner peripheral wall and a side wall, said groove being adapted to receive a marking element positioned against said inner peripheral wall and

said side wall thereof, a clamping plate for detachably clamping the marking element in position in said groove, means for guiding each slide comprising pins having their inner portions secured in apertures in said hub of the wheel and their outer portions extending into guiding apertures in said slide, and springs for yieldingly pressing said slides outwardly.

2. In a marking device of the class described, a rotatable wheel, a slide carried by the wheel adapted to be moved radially toward and from the axis of the wheel, a marking element carried by the slide and directed outwardly from the periphery of the wheel, means for guiding said slide comprising a plurality of pins, each having its inner portion extending into an aperture in said hub and its outer end portion into an aperture in the slide, one of said pins being located centrally of said slide, and a spring coiled about the centrally located pin for yieldingly pressing said slide outwardly, said wheel having a peripheral flange extending over a portion of the outer end of the slide for limiting the outer movement of the slide.

3. In a marking device of the class described,

a rotatable wheel having an annular channel in one side thereof providing a central hub portion and a peripheral flange, a plurality of spaced slides mounted in said channel and radially movable between said hub portion and said flange, each slide having a groove having an inner peripheral wall and a side wall, said groove being adapted to receive a marking element positioned against said inner peripheral wall and said side wall thereof, a clamping plate for detachably clamping the marking device in position in said groove, means for guiding each slide, and springs for yieldingly pressing said slides outwardly.

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The following references are of record in the file of this patent:

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