April 30, 1957 J. B. KLAUS 2,790,386

ROTARY PRINTING DEVICE

Filed Oct. 21, 1954

Fig. 1.

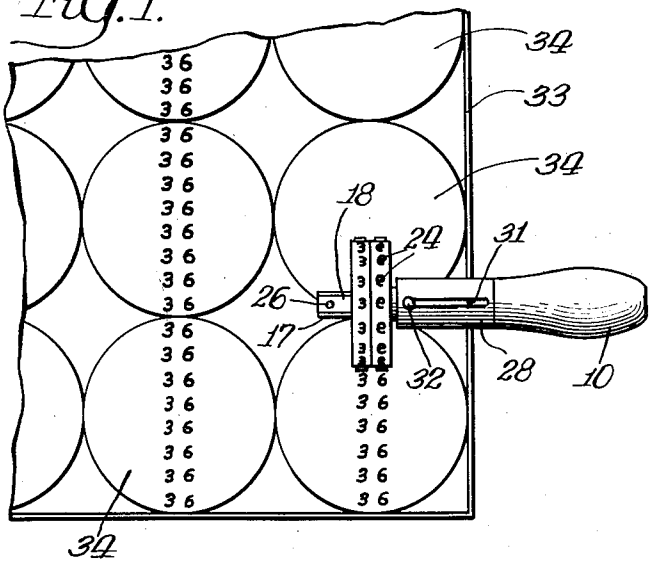


Fig. 2.

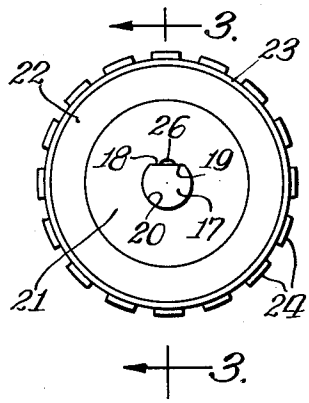


Fig. 3.

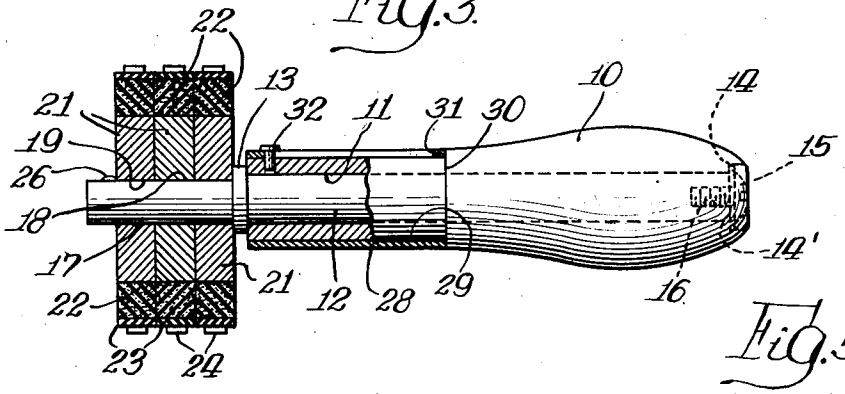


Fig. 4.

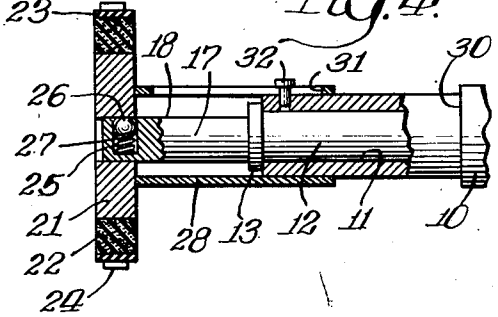
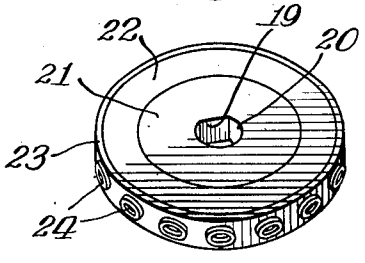


Fig. 5.



INVENTOR.

John B. Klaus,

BY John P. Smith

Atty.

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ROTARY PRINTING DEVICE

John B. Klaus, Chicago, Ill.

Application October 21, 1954, Serial No. 463,730

2 Claims. (Cl. 101—375)

The present invention relates generally to a printing device, but more particularly to a novel and improved rotary type printing device which has special adaptations for use in connection with the rapid price printing of packages, cans, cartons, bags, all sorts of containers and the like so as to expedite the printing of the price on a variety of goods and containers thereof.

One of the primary objects of the present invention is to provide a novel and improved printing device of this type which is simple in construction and readily adapted to change from one printing disc to another printing disc or a plurality of them by a simple manipulation of the device.

A further object of the invention is to provide a novel and improved rotary printing device in the form of a handle having a rotary shaft therein which is adapted to detachably support thereon one or more rotatable printing discs and having means associated with the handle for actuating the disc to discharge the disc from the rotary shaft.

These and other objects are accomplished by providing a construction and an arrangement of the various parts in the manner hereinafter described and particularly pointed out in the appended claims.

Referring to the drawings:

Fig. 1 is a fragmentary top plan view of a case of canned or packaged foods illustrating the manner in which my improved rotary printer may be rapidly applied thereto for printing the price on a plurality of individual packages at one time;

Fig. 2 is an end elevational view of the device shown in Fig. 1;

Fig. 3 is a cross-sectional view taken on the line 3—3 in Fig. 2;

Fig. 4 is a fragmentary cross-sectional view showing the manner in which the printing discs are removed from the rotary shaft; and

Fig. 5 is a perspective view of one of the printing discs.

In illustrating one form my invention may assume in practice, I have shown the same as comprising a handle 10 which has a longitudinally extending bore 11 therein. This bore extends throughout the length of the handle. Rotatably mounted in the bore 11 of the handle 10 is a shaft 12. The shaft 12 has a peripheral flange 13 adjacent one end of the shaft 12 so as to form an inner or thrust bearing against the handle 10 and also as a stop for the printing discs in the manner hereinafter described. The other end of the handle 10 is provided with a cylindrical recess 14. Seated in the recess 14 is a washer 14' which is secured to the end of the shaft 12 by a machine screw 15. The threaded portion of the screw is mounted in the internally threaded aperture 16 in the end of the shaft 12. The outer end of the shaft 12, as shown at 17, is provided with a longitudinally extending flattened portion 18 which is adapted to engage a complementary flattened portion 19 of an aperture 20 in each of the printing discs 21. These discs are detachably but non-rotatably mounted on the shaft 12. The

discs 21 are preferably made of metal and have secured on their peripheries rubber rings 22. Secured to the peripheries of each of the rubber rings 22 is a rubber printing tape 23 which carries the numerals or printing symbols as indicated at 24. Mounted in a suitable aperture 25 adjacent the outer end of the shaft section 17 is a spring actuated depressable ball 26. The ball 26 is normally pressed outwardly by a prong 27 mounted in the aperture 25 as clearly shown in Figs. 3 and 4 of the drawings. The ball is so supported in the aperture that it is permitted to only partially project from the flat surface 19 of the shaft portion 17. Obviously the projecting ball will frictionally resist accidental removal of the discs from the shaft and at the same time will permit the discs to be removed therefrom when sufficient pressure is used for that purpose.

In order to facilitate the removal of the discs from the shaft, I have provided a longitudinally movable sleeve 28 which is slidably mounted on a reduced diameter or recessed section 29 on the inner end of the handle 10. This sleeve 28, when in its normal position as shown in Fig. 3, has one end thereof adapted to engage a shoulder 30 formed on the handle 10. Extending longitudinally of the sleeve 28 is a slot 31. Extending through the slot 31 and secured adjacent the inner end of the handle 10 is a headed pin 32 which forms a guide as well as stop for limiting the outward or relative movement of the sleeve 28 with respect to the handle 10 in the operation of removing the discs 21 from the shaft portion 17. In other words, in order to remove the printing discs from the shaft portion 17, the sleeve 28 is actuated or pushed outwardly from the position shown in Fig. 3 to the position shown in Fig. 4 of the drawings to thereby depress the ball 26 and disconnect the discs from the shaft. This arrangement is obviously for the purpose of preventing the hands from becoming smeared with ink in the operation of removing or changing the discs.

In Fig. 1 of the drawings, I have shown a fragmentary portion of a case of canned or packaged goods which includes an outer casing or container 33 and circular packages or cans 34 mounted therein. It will be obvious that when the printing discs are properly inked on an inking pad, the handle or printing device may be run rapidly across the tops of the packages or cans 34 so as to imprint a continuous succession of price numerals on each of the individual cans or packages. This succession of repeated numerals on each package or can insures a clearer imprint which can be immediately located by the checking clerk.

While in the above specification I have described one embodiment which my invention may assume in practice, it will, of course, be understood that the same is capable of modification and that modification may be made without departing from the spirit and scope of the invention as expressed in the following claims.

What I claim as my invention and desire to secure by Letters Patent is:

1. A rotary printing device comprising a handle, a shaft journaled in said handle and protruding from one end thereof, a detachable printing disc detachably secured to said shaft, spring actuated means mounted on said shaft and engageable with said disc for resisting the removal of said disc from said shaft, and means mounted on said handle and engageable with said disc for removing said disc off the end of said shaft over said spring means.

2. A rotary printing device for successively printing a plurality of merchandise, goods or packages comprising a handle, a shaft journally supported by said handle, one or more printing discs removably secured to said shaft, a spring pressed ball mounted on one end of said shaft and movable into the path of said disc for resisting the removal of said disc, and a sleeve longitudinally movable

on said handle and engageable with said disc for removing said disc from said shaft.

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