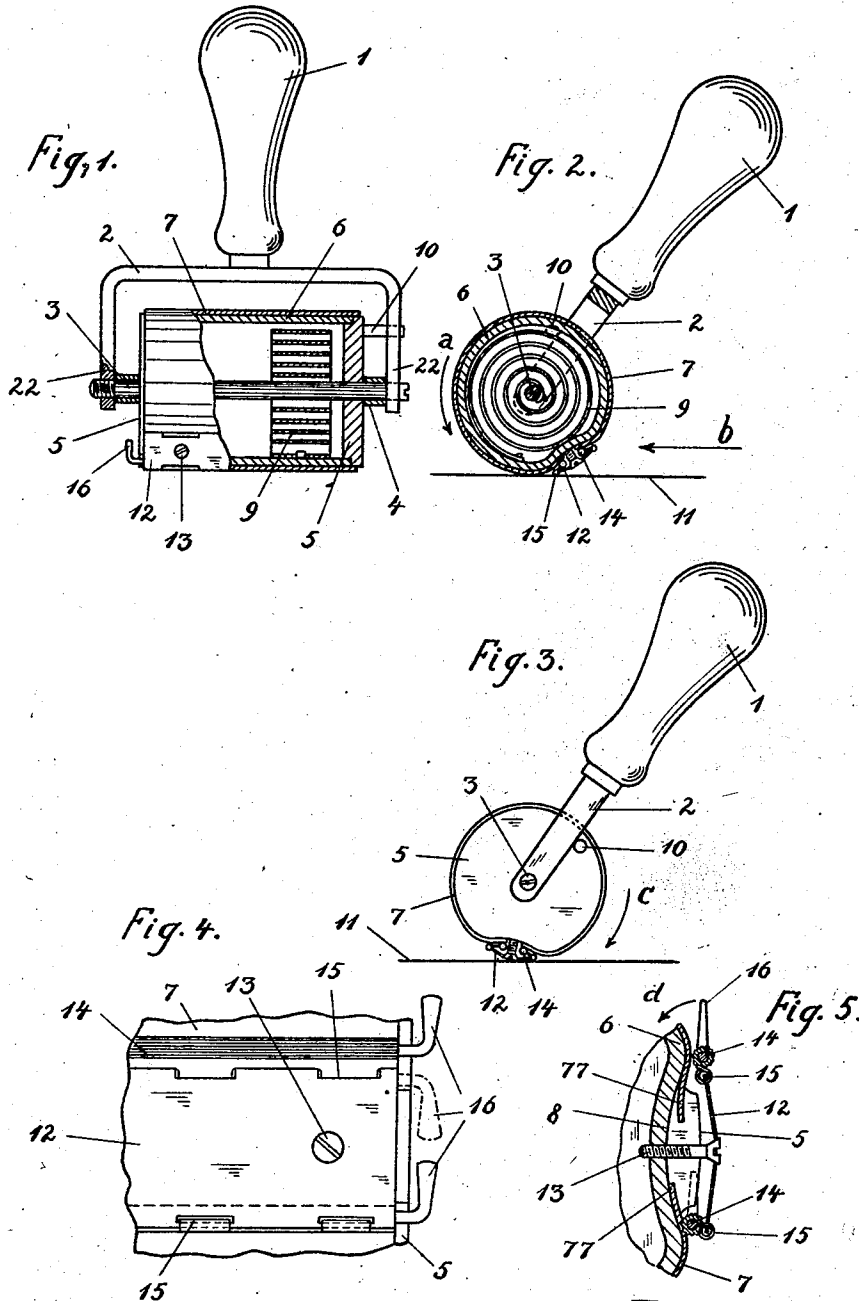


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K. CASTAN
MANIFOLDING DEVICE
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Inventor
Karl Castan
By *[Signature]*
His Attorney

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KARL CASTAN, OF PFORZHEIM, GERMANY.

MANIFOLDING DEVICE.

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The present invention has reference to an improved manifolding device, and relates more particularly to a device in roller form for manifolding drawings, sketches, writings, type matter, and the like, and it specifically comprises a handled roller to the circumference of which the manifolding member is removably applied, means being provided for always automatically returning the roller into its initial starting position, and, further, means being provided for automatically lifting the roller, that is to say, its prepared printing surface, off the surface to be imprinted upon the end of the operative rolling movement of the roller having been reached.

In order to make my invention readily understood, I will now describe it in detail in connection with the accompanying drawing, in which Fig. 1 is a side elevation of the new device, partly in section; Fig. 2 is a cross-section therethrough, with the roller in the starting position; Fig. 3 is a side elevation, with the roller in the lifted end-position; Fig. 4 is a fragmentary side view of the mechanism for securing the manifolding member on the drum, and Fig. 5 is a cross-section thereof.

To the handle 1 is secured the yoke 2 in the parallel bracket arms 22 of which is fixedly mounted the shaft 3. Upon the latter is rotatably journaled the drum 6, spacer sleeves 4 being respectively interposed between the end walls 5 of the drum and the arms 22. Instead of the drum being rotatably journaled on the shaft 3, obviously, the latter may be rotatably journaled in the yoke arms 22, in which case the drum would have to be fixed upon the shaft 3. The manifolding member 7, preferably in the form of the well known gelatine or glue and glycerine composition sheet, is placed upon the drum circumference with the two longitudinal sheet edges 77 secured in the longitudinal depression 8 in the circumferential drum wall, as clearly shown in Fig. 5. Within the drum 6 is arranged the helical spring 9 whose ends are respectively secured to the drum interior and the shaft, and which tends to oppose rotation of the drum in counter-clockwise direction, as indicated by the arrow *a* in Fig. 2. A laterally extending stop pin 10 (Fig. 1) contacting with the front edge of the yoke 2 retains the roller in the initial starting position, with the spring slightly tensioned.

If, then, the roller is rolled over a surface 11 in the direction of arrow *b* in Fig. 2, it will make a nearly complete revolution until the stop pin 10 contacts with the rear edge of the yoke (Fig. 3), the entire printing surface being unrolled upon the surface 11 to be imprinted. The spring 9 meanwhile has been correspondingly tensioned, and, upon the device being lifted off the imprinted surface at the end of the printing stroke, will automatically return the roller into its starting position relative to the handle, as indicated by the arrow *c* in Fig. 3.

For keeping the tacky printing member 7 off the surface 11 in the initial roller position and for automatically lifting it off at the termination of each printing operation, I provide a somewhat resilient sheet metal member 12, secured to the drum wall by means of screws 13 and bridging the longitudinal drum depression 8, the crown of this bridge member extending somewhat above the normal circumference of the drum. The position of the pin 10 relative to the bridge member is such that upon starting contact of the pin with the handled yoke 2, the bridge member is at its lowermost relative position (Fig. 3). Each longitudinal edge 77 of the manifolding member 7 is clamped in place by a fluted or roughened rod 14, to one end of which a handle 16 is secured, the rod being eccentrically hinged, for example, to the member 12 at 15.

The manifolding member 7 is mounted upon the drum circumference by the two edges 77 being placed into the drum depression 8, which manipulation can readily be effected after the two clamping rods 14 have been swung outwardly from underneath the bridge member 12; see the upper full-drawn rod and handle in Figs. 4 and 5. Upon the handle 16 then being swung inwardly in the direction of the arrow *d* (Fig. 5), it is turned under the spring member 12 (lower rod 14 in Fig. 5) biting into the member 7 and securely clamping it in place. The respective handle 16 now assumes the dotted-line position in Fig. 4. For exchanging the printing member 7 both handles 16 are swung out from under the bridge member 12, when the sheet edges 77 are freed for removal of the sheet.

Obviously, instead of using a gelatine or the like sheet, I may affix to the drum in like manner an ink absorbing element for plotting purposes or a flexible or pre-flexed

member presenting on its outer surface rubber or metal or other type or other reproducible designs.

What I claim is:—

5 1. A device of the character set forth, comprising a handle, a roller rotatably journaled therein and presenting a longitudinal wall depression, an element surrounding said roller and its facing longitudinal edges
10 disposed in said roller depression, means on said roller for respectively securing these edges in place and for lifting the roller off the operated upon surface at the end of its operative movement thereover.

15 2. A device of the character set forth, comprising a handle, a roller rotatably journaled therein to be operatively rotated in counter-clockwise direction and presenting a longitudinal wall depression, an element on
20 said roller with its longitudinal facing edges disposed in said roller depression, means for securing these edges in place, means for urging the roller in clockwise direction, and

means respectively limiting forward and backward rotation of the roller to approximately a full revolution thereof, and said edge-securing means serving also for lifting the roller off the operated upon surface at the end of the operative movement of the roller. 25 30

3. In a manifolding device according to claim 1, the means for locking the longitudinal edges of said roller-surrounding element in place on said roller, comprising a resilient bridge member spacedly secured
35 to said roller to extend somewhat beyond the normal roller circumference and bridging said roller depression, a roughened clamping rod, eccentrically hinged at each longitudinal edge of said bridge member, and a handle for each clamping rod for
40 swinging the rod into or out of gripping contact with the edges of said roller-surrounding element.

In testimony whereof I affix my signature.

KARL CASTAN.