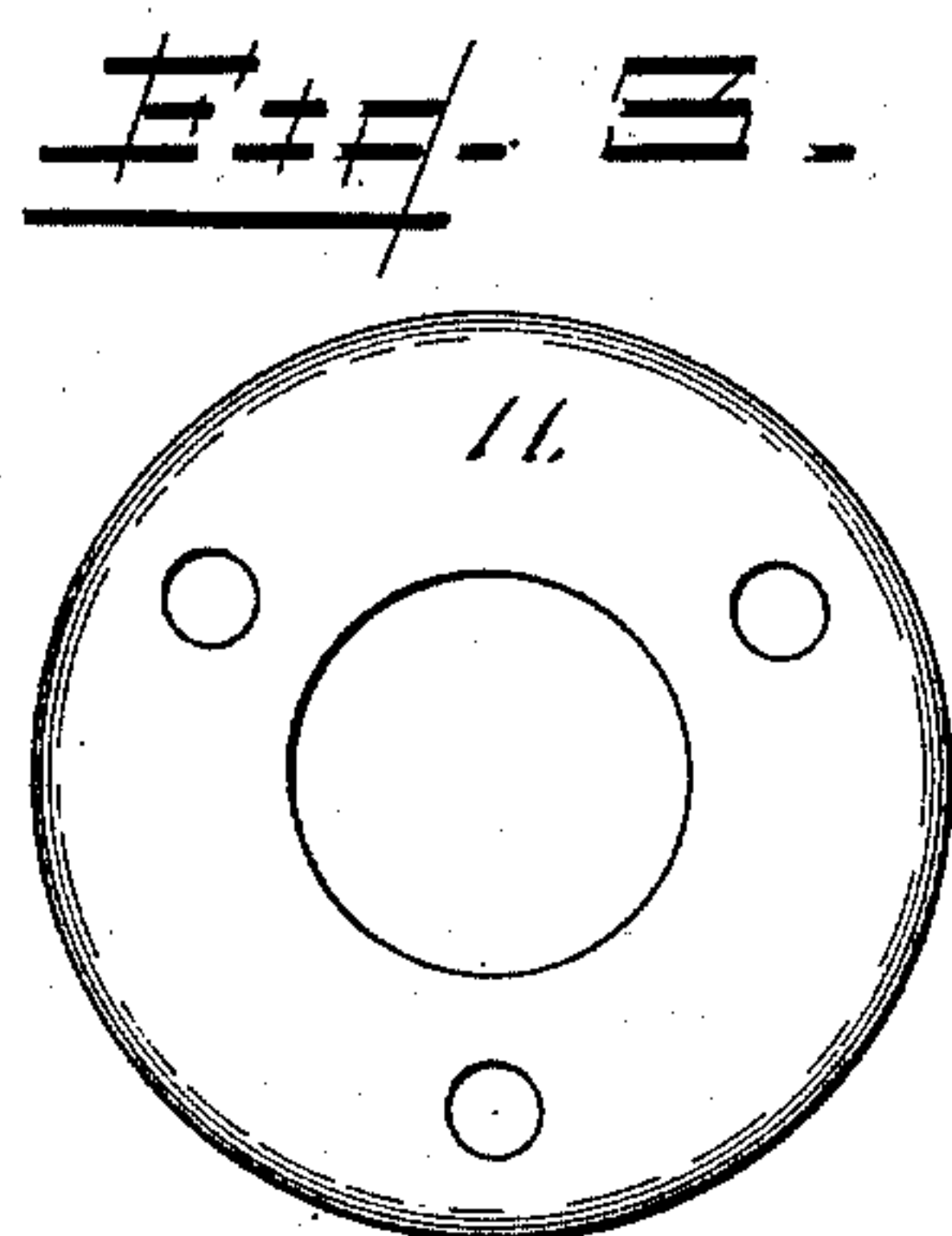
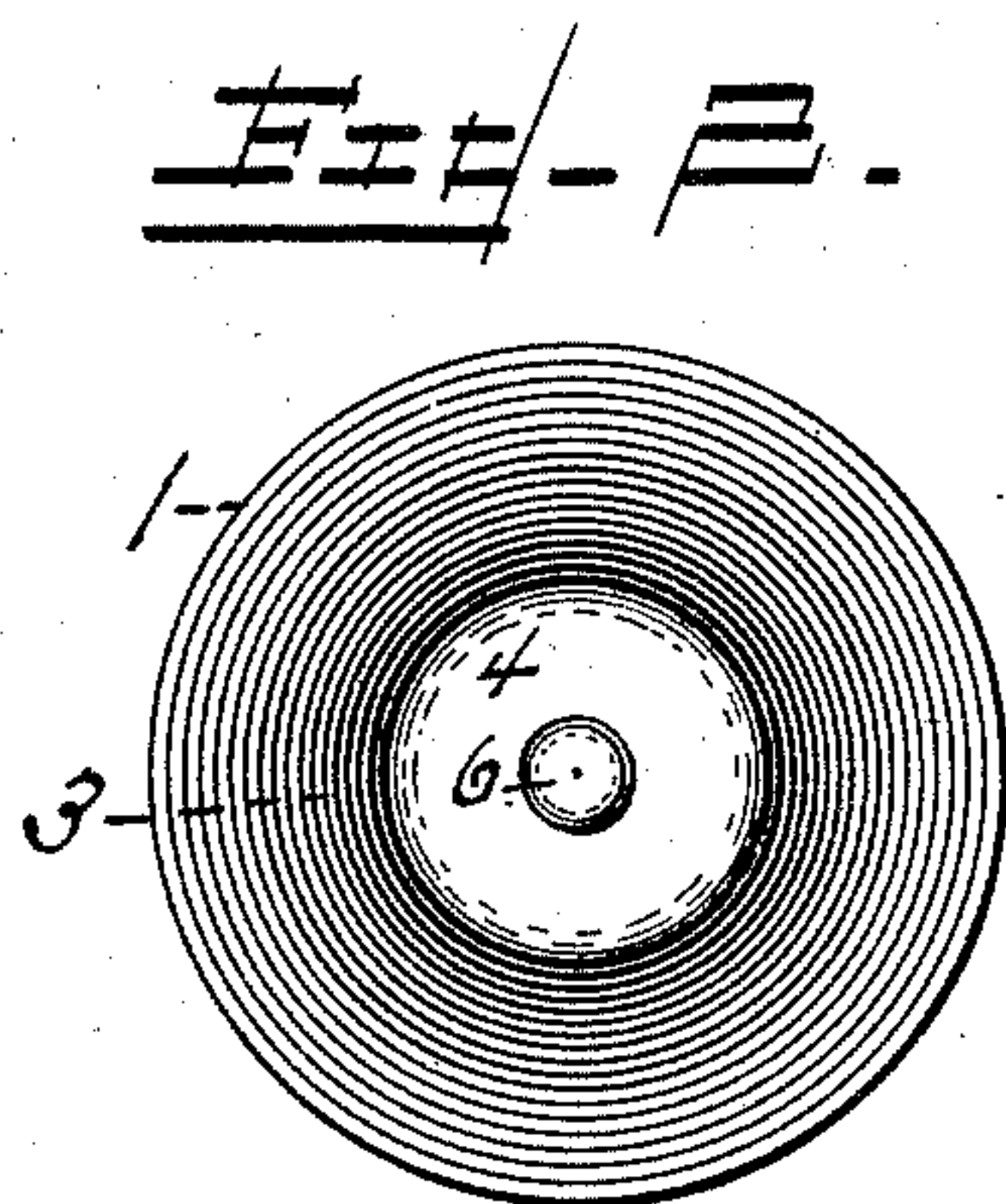
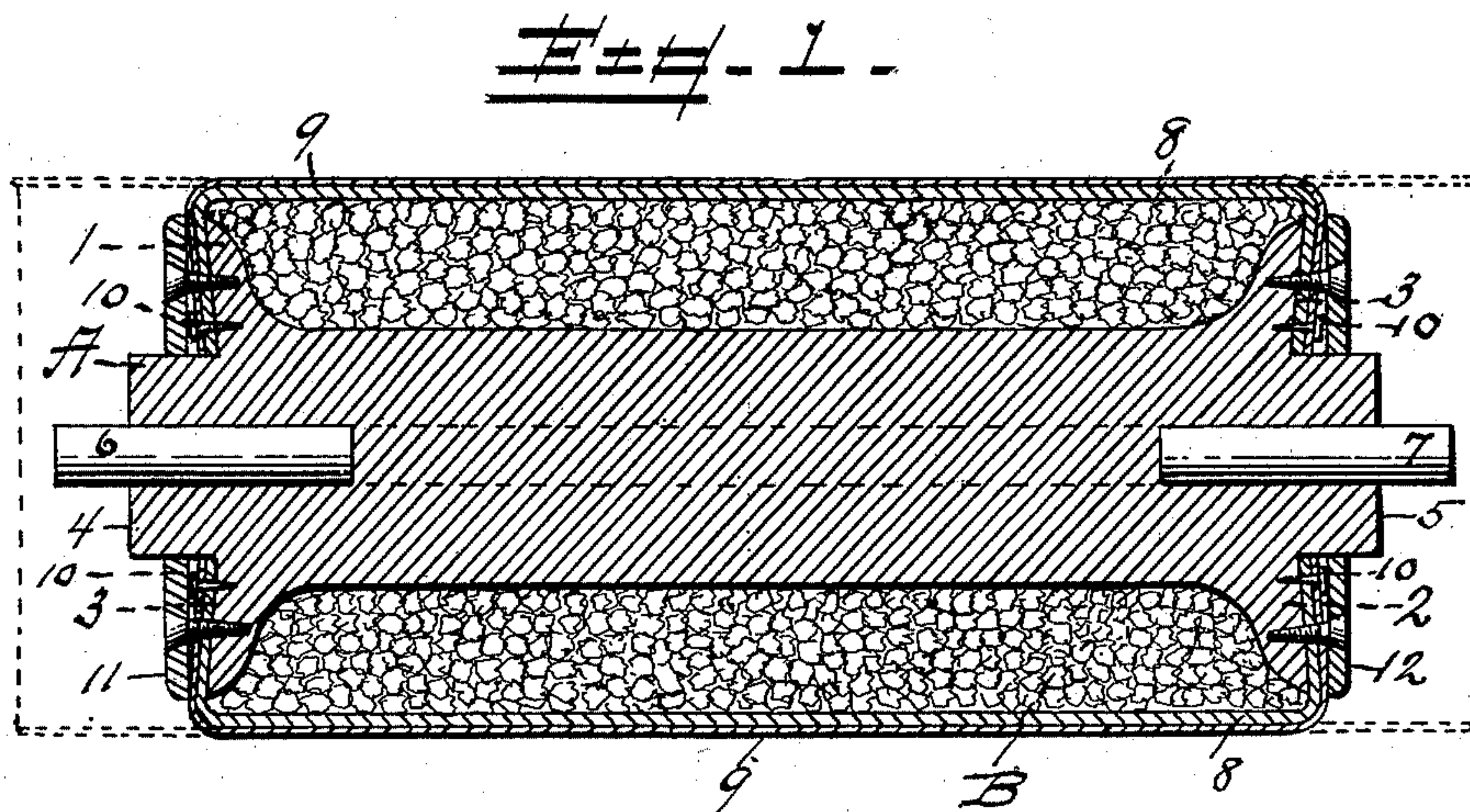


(No Model.)

C. M. BOWMAN.  
INKING ROLLER.

No. 477,497.

Patented June 21, 1892.



Witnesses

Albert B. Blackwood  
Wm. H. Bates

Inventor

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Attorney



# UNITED STATES PATENT OFFICE.

CHARLES M. BOWMAN, OF LEBANON, PENNSYLVANIA.

## INKING-ROLLER.

SPECIFICATION forming part of Letters Patent No. 477,497, dated June 21, 1892.

Application filed October 3, 1891. Serial No. 407,592. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES M. BOWMAN, a citizen of the United States of America, residing in Lebanon, in the county of Lebanon and State of Pennsylvania, have invented a new and useful Inking-Roller for Printers' Use, of which the following is a specification.

My invention relates to improvements in inking-rollers for distributing and applying ink to type-forms in printing; and the object is to provide an inking-roller having the requisite characteristics or qualities for applying the ink to printing-forms, wherein are embodied the desired yielding or impacting function and also the necessary resilient function for maintaining the regular circular conformation of the roller; and I accomplish these objects by the novel construction and combination of the parts, as specified in detail hereinafter, and which I have fully and clearly illustrated in the accompanying drawings, wherein—

Figure 1 is a central longitudinal section of the roller, showing the stock, the elastic comminuted or broken packing, the textile, and the elastic outer covering. Fig. 2 is an end view of the stock, and Fig. 3 is a detail view of the end disk or washer.

A designates the stock of the roller, made with annular end flanges 12, preferably curved or inclined from their base outwardly, as shown. The outer end faces of the stock are preferably concaved or dished out, as at 3, to afford room or space for the turned-down-end portions of the coverings, substantially as seen in the drawings in Fig. 1. The ends of the stock are formed with circular central projections 4 5, and in these may be fixed journals 6 7 to take in the usual bearings. The journals may be extensions of a central axle projected through the stock, as indicated by the parallel dotted lines in Fig. 1.

B designates comminuted or broken sponge or a similar yielding and resilient substance disposed and packed around the stock between the annular end flanges, and over this packing is stretched a textile woven or made tube 8, and over this tube 8 is drawn an elastic tubular covering 9, the packing, textile intermediate covering, and the elastic cover forming, when rightly arranged, a roller hav-

ing a regular and elastic inking-surface. The textile tube and the elastic covering are made longer than the stock, so that their projecting ends can be turned down onto the end faces of the respective ends of the stock, as shown, and then fastened by short tacks or screws 10 or other suitable fastenings, and then, to give additional security and finish to the ends, disks 11 12 are fastened against the end faces of the stock, as shown in Fig. 1 of the drawings.

In the foregoing description I have mentioned properly broken or comminuted sponge as a desirable article for packing around the stock to constitute the yielding and resilient base for the roller. This article is light and cheap, possesses sufficient elasticity, and is not liable to mat or unduly harden in packing; but other packings having the same qualities can be substituted. As thus constructed, the roller may be given any desired superficial softness and elasticity, and the body so inclosed within the outer elastic cover is of great durability in the uses for which it is intended. The only parts which may require renewal or replacement are the outer elastic cover, which, being tubular, may be easily and readily removed and a new one substituted, and the journals may at long periods have to be renewed. The elastic covering is readily and easily slipped and stretched over the body of the roller composed of the stock, the packing around the stock, and the woven cover.

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

1. A printer's ink-roller composed of a central stock having annular end flanges, a yielding comminuted or broken packing around the stock between the end flanges, a woven tube over the packing, and a detachable elastic covering over the textile tube, substantially as described.

2. A printer's ink-roller composed of a central stock formed with annular end flanges, a comminuted or broken packing around the stock between the said flanges, a tubular textile covering longer than the body of the stock over the packing, and a removable elastic outer covering longer than the body of the

stock, said coverings being adapted to have their projecting ends turned down and fastened to the end faces of the stock.

3. A printer's ink-roller composed of a central stock formed with annular end flanges and concaved end faces, a yielding and elastic packing around the stock between the annular flanges, a woven tube over the packing, an elastic tube over the woven tube, said  
5 tubes having their ends turned down and secured to the end faces of the stock, and metal

disks secured on the end faces of the stock against the turned-down ends of the coverings, substantially as described.

In witness whereof I have hereto set my hand in the presence of two attesting witnesses.

CHARLES M. BOWMAN.

Attest:

LEWIS REHR,  
F. H. EBUR.