

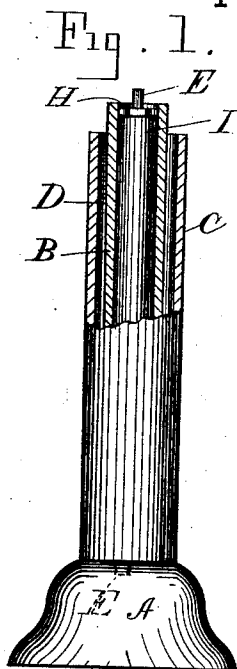
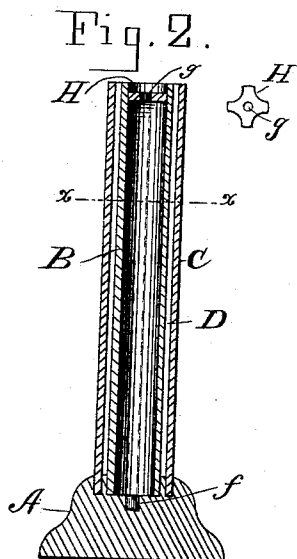
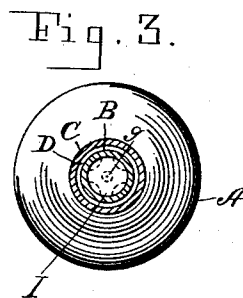
(No Model.)

J. H. OSGOOD.

MOLD FOR MAKING PRINTERS' INKING ROLLERS.

No. 328,247.

Patented Oct. 13, 1885.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOSEPH H. OSGOOD, OF PEABODY, MASSACHUSETTS.

MOLD FOR MAKING PRINTERS' INKING-ROLLERS.

SPECIFICATION forming part of Letters Patent No. 328,247, dated October 13, 1885.

Application filed September 27, 1884. Serial No. 144,099. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH H. OSGOOD, of Peabody, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Molds for Making Printers' Inking-Rollers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The molds as heretofore made, and as usually made prior to my invention, consist of a single tube of metal, either cast, bored, or drawn, this tube being then provided with a supporting foot or base, and with centers for holding the rollers back in an upright position, and for supporting the mold, the roller-stock being a rod of iron, or iron covered with wood, having bearings or journals turned on each of its ends, and upheld in a central vertical position within the tube, and the composition in a melted state is poured into this mold until it is full, and when cool the roller is withdrawn from the mold and finished.

In my improvement, however, I make the walls of the tube or barrel of the mold double; or, in other words, I surround or cover the inner tube with another or outer tube of metal, paper, or other material, leaving a space between this outer and inner tube.

In the accompanying drawings, Figure 1 illustrates one of my improved molds, partly in section, in the process of forming an inking-roller. Fig. 2 illustrates a slight modification of Fig. 1, wholly in section, and with no inking-roller inclosed. Fig. 3 illustrates a cross-section through *x x* of Fig. 2.

A is the stand or base upon which the two tubes are supported. B is the inner or molding tube, which forms the mold proper for the roller. C is the outer tube surrounding the tube B, and D is the space between said tubes. E is the metal rod or core of the roller, one end of which is supported in the hole *f* of the base A, the other end of the rod being supported in a hole, *g*, of the star H. The composition or other material forming the body I of the roller will fill up all the space between the rod E and the inner wall of the tube B.

The mold above described, and represented in Fig. 1, is a very convenient kind for large rolls for power-press rollers.

Instead of having the outer tube securely fixed upon the base A, it may be made detachable and held in place by means of a shoulder or groove in the base or foot A. This form of mold has been found to be a very desirable one for small or job-printing rollers. The outer tube, B, may be removable, or fixed to the base or support A, as preferred; but if removable the two tubes should be so constructed as to form practically one double tube when in use. The space D may be filled with a non-conducting or other material, or it may be left unfilled, as shown in the drawings, thus constituting an air-space. The outer tube may cover the whole length of the inner one, or not, as may be desirable. One or both the tubes may be made of metal, paper, or other material, and they may be fastened together or separable.

The advantages incident to my improved construction are as follows: It is essential to the casting of perfect rollers that the composition, after being poured hot into the molds, should be cooled very slowly. If it is kept in a liquid or semi-liquid condition for four or five hours, time is given for air contained in the composition to rise to the top of the mold. The roller will then become dense and solid and its surface will be free from pin-holes. Streaks, or "backbones," as they are technically called, are also avoided. According to the old system depressions will come upon the surface of the roller, arising from the too rapid cooling upon one side of the mold, and consequent unequal or one-sided shrinkage will take place. By my invention the double molds, in short, equalize the temperature surrounding the composition, and thus prevent its too rapid cooling, and the consequent pin-holes, backbones, depressions, &c.

I claim—

The improved described mold for making printers' rollers, consisting in the two concentric tubes, one within the other, and supported on a common base, the inner one serving for forming the roller, and the space between the inner and outer one constituting an air or non-conducting space for equalizing the temperature and insuring a gradual cooling of the composition, all as set forth.

JOSEPH H. OSGOOD.

Witnesses:

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