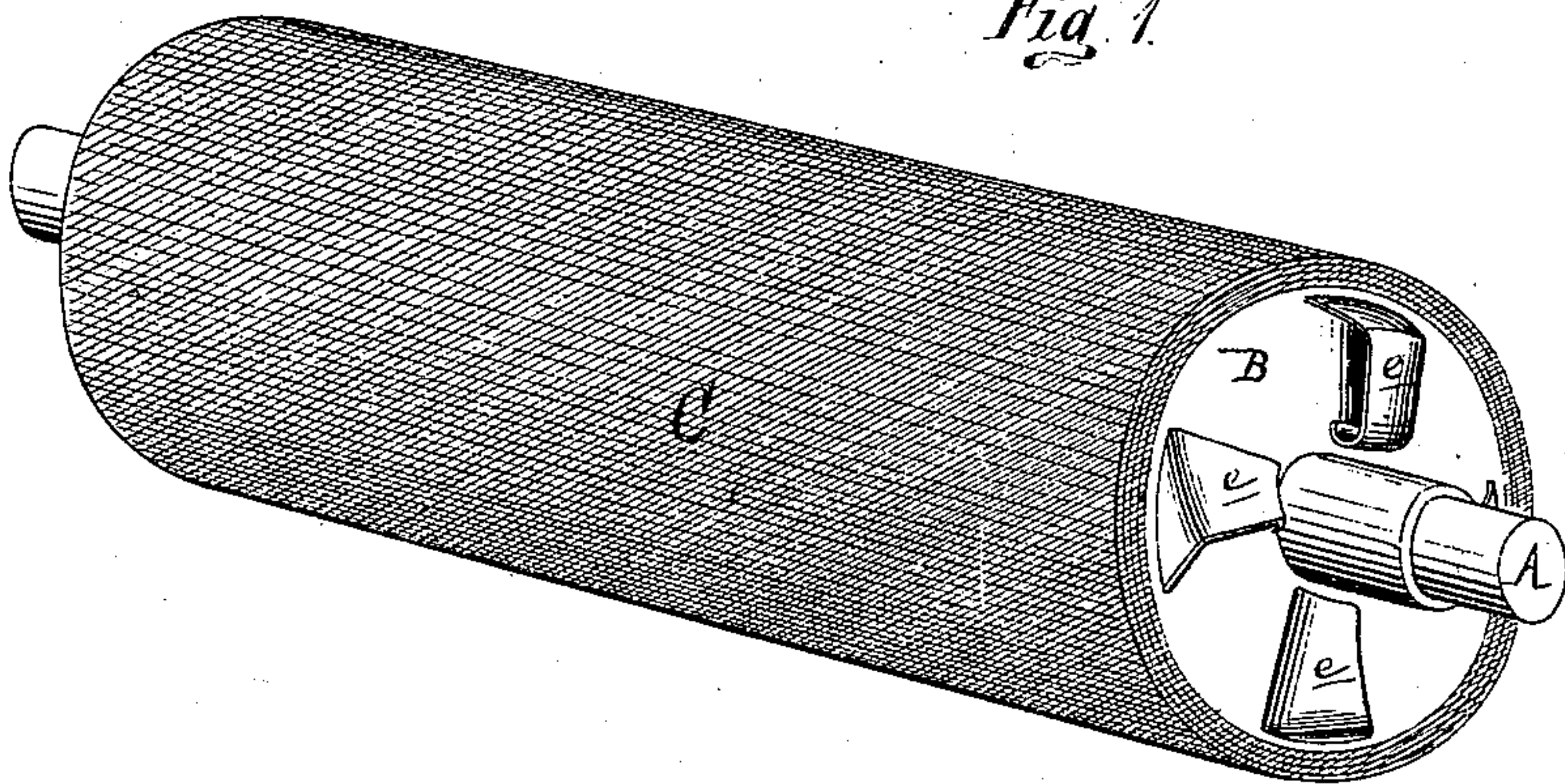


J. H. TITUS.  
INKING APPARATUS.

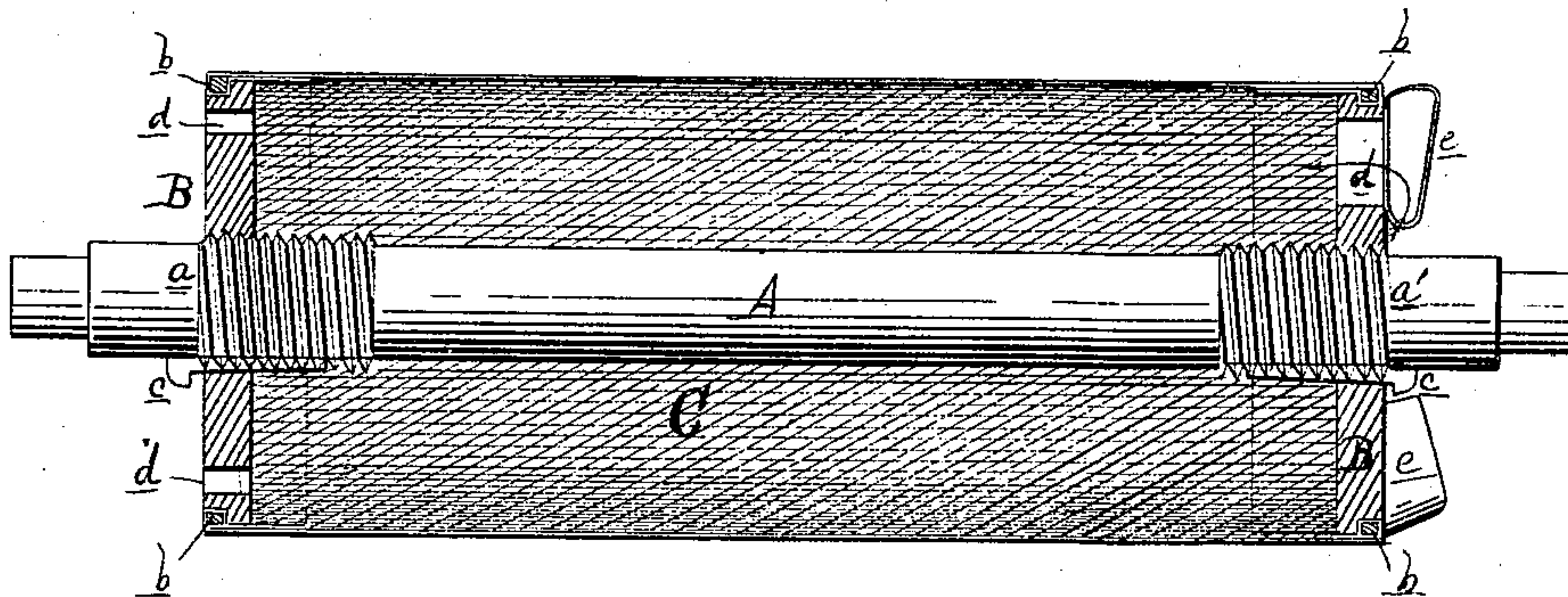
No. 181,744.

Patented Aug. 29, 1876.

*Fig. 1.*



*Fig. 2.*



Attest:  
Edvard Barthel.  
H. F. Everts

Inventor:  
J. H. Titus  
By Atty  
Phil S. Sprague



# UNITED STATES PATENT OFFICE.

JONAS H. TITUS, OF DETROIT, MICHIGAN, ASSIGNOR TO HIMSELF AND  
HUBERT BROSSARD, OF SAME PLACE.

## IMPROVEMENT IN INKING APPARATUS.

Specification forming part of Letters Patent No. 181,744, dated August 29, 1876; application filed  
April 19, 1876.

*To all whom it may concern:*

Be it known that I, JONAS H. TITUS, of Detroit, in the county of Wayne and State of Michigan, have invented an Improvement in Inking-Rollers, of which the following is a specification:

My invention relates to an improvement in inking-rollers, such as are used for inking the forms on fast-running power-presses; and has for its object to render the roller more durable and less liable to melt, by making it hollow, so as to allow a current of air to be passed through it to keep it cool; and, further, to lessen the cost of the roller by making the periphery of the roller-stock of an elastic material, so as to require a less thickness of roller composition to be cast on, which elastic periphery is stretched over hoops secured to two heads, which are screwed onto a metal shaft.

Figure 1 is a perspective view of the naked roller-stock. Fig. 2 is a longitudinal section of the same.

In the drawing, A represents the shaft of the roller, having a right screw-thread cut on it near one end, and a left-hand thread, *a'*, near the other end, on which threads are screwed two flanged heads, B, each fitted with a metal hoop, *b*, over which is turned one end of a tube, C, of canvas or other fabric or pliable material, which may be stretched and put under the required tension by screwing the heads B apart. Four keyways are cut through each screw-thread *a* or *a'*, and one through the eye of the head, which is secured by a key, *c*, after adjustment.

The roller-stock so constructed is placed in a roller-mold, and the roller-composition is cast on it in the usual manner, but of a much less than ordinary thickness, as the yielding surface of the roller-stock will give the roller the required elasticity.

Slots or openings *d* are made in each head to allow a current of air to pass through, in order to keep the roller cool, or comparatively cool, and thus obviate the tendency of the roller to melt under the heat generated from the friction in a fast-running press.

To force the circulation of air through the roller, the openings in one head are each included in a radial cup, *e*, whose mouth is open to or faces the direction in which the roller rotates, as shown in Fig. 1.

What I claim as my invention is—

1. In an inking-roller, the combination of a hollow body formed of a fabric or yielding material under tension between heads on the roller-shaft and openings in the said heads, to allow the passage of air through the said roller, substantially as and for the purposes set forth.

2. The combination of the heads B, hoops *b*, and a pliable or yielding tube, C, with the shaft A, substantially as and for the purpose set forth.

3. The cups *e*, in combination with the openings *d* in the head B, as and for the purpose set forth.

JONAS H. TITUS.

Witnesses:

H. F. EBERTS,  
H. S. SPRAGUE.