

No. 803,603.

PATENTED NOV. 7, 1905.

G. KRON.

METHOD OF PRODUCING LIQUID TIGHT JOINTS FOR IMPREGNATING WOOD.

APPLICATION FILED APR. 19, 1905.

Fig. 1.

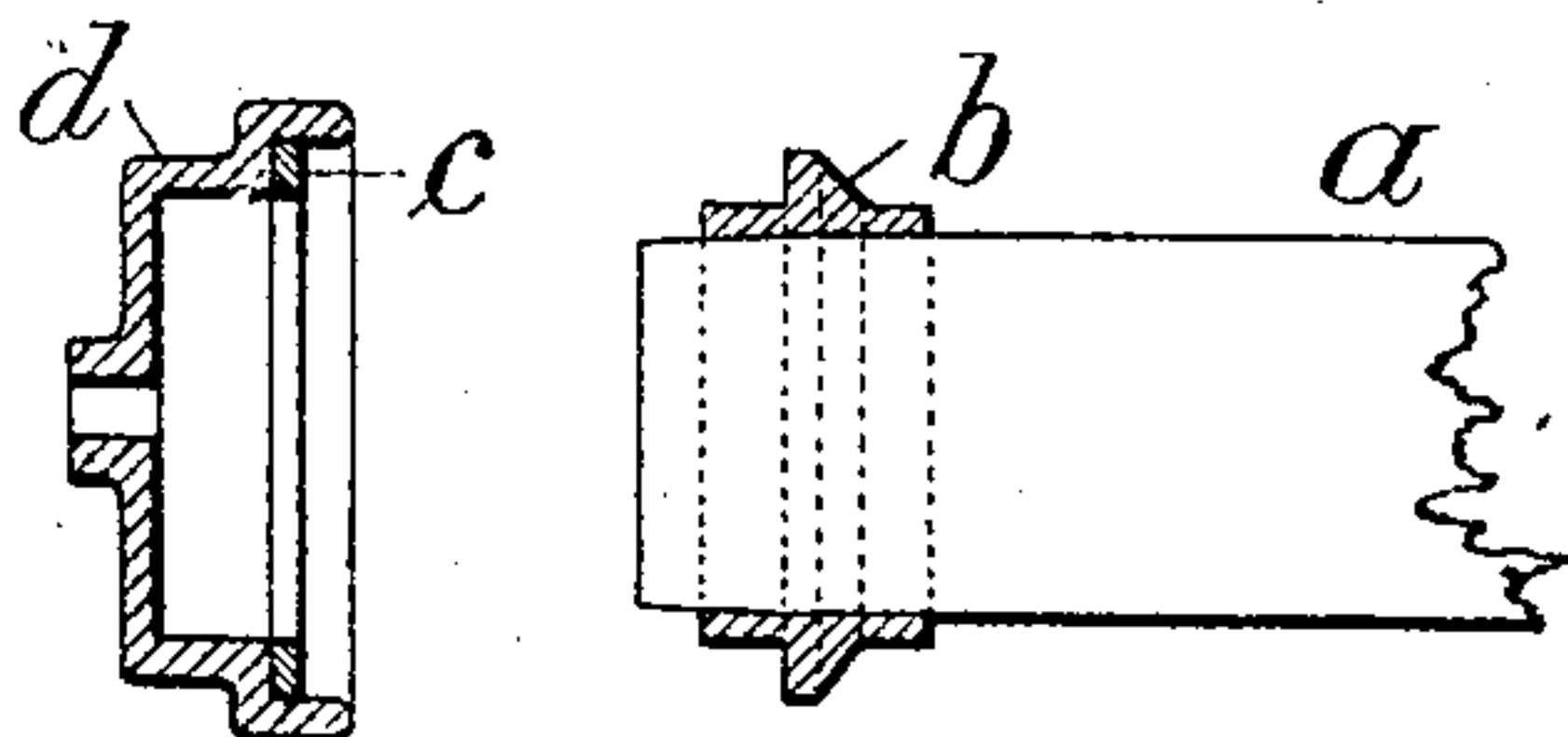


Fig. 2.

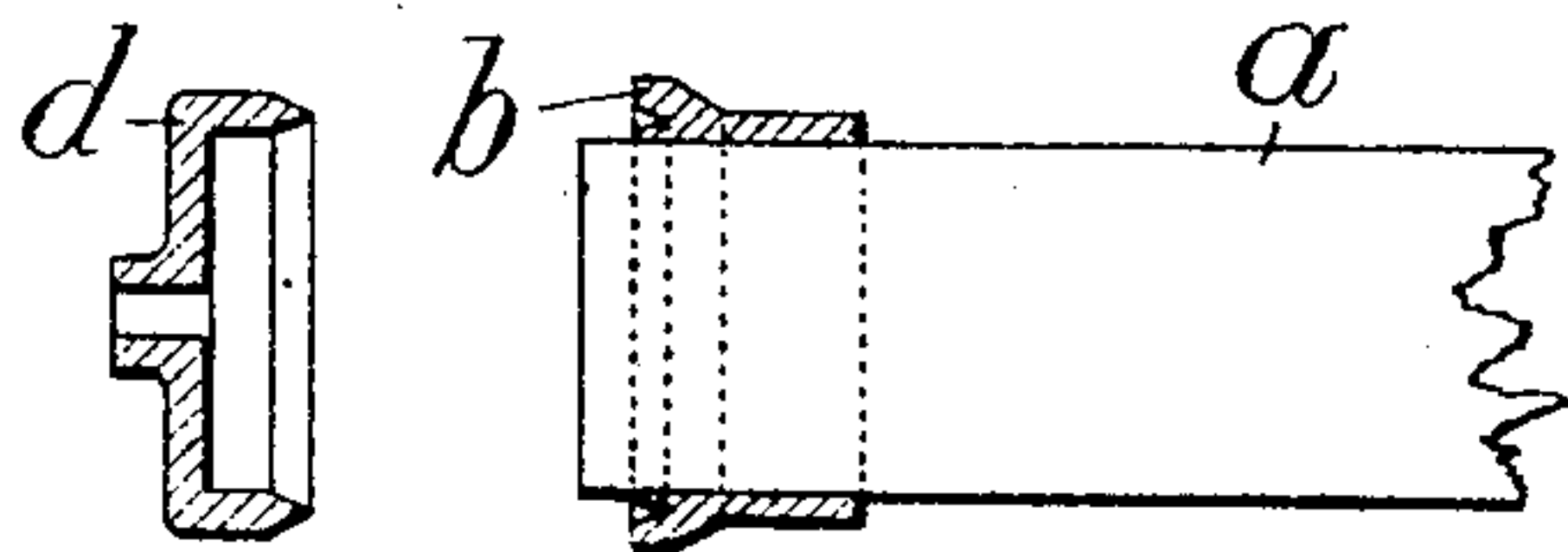


Fig. 3.

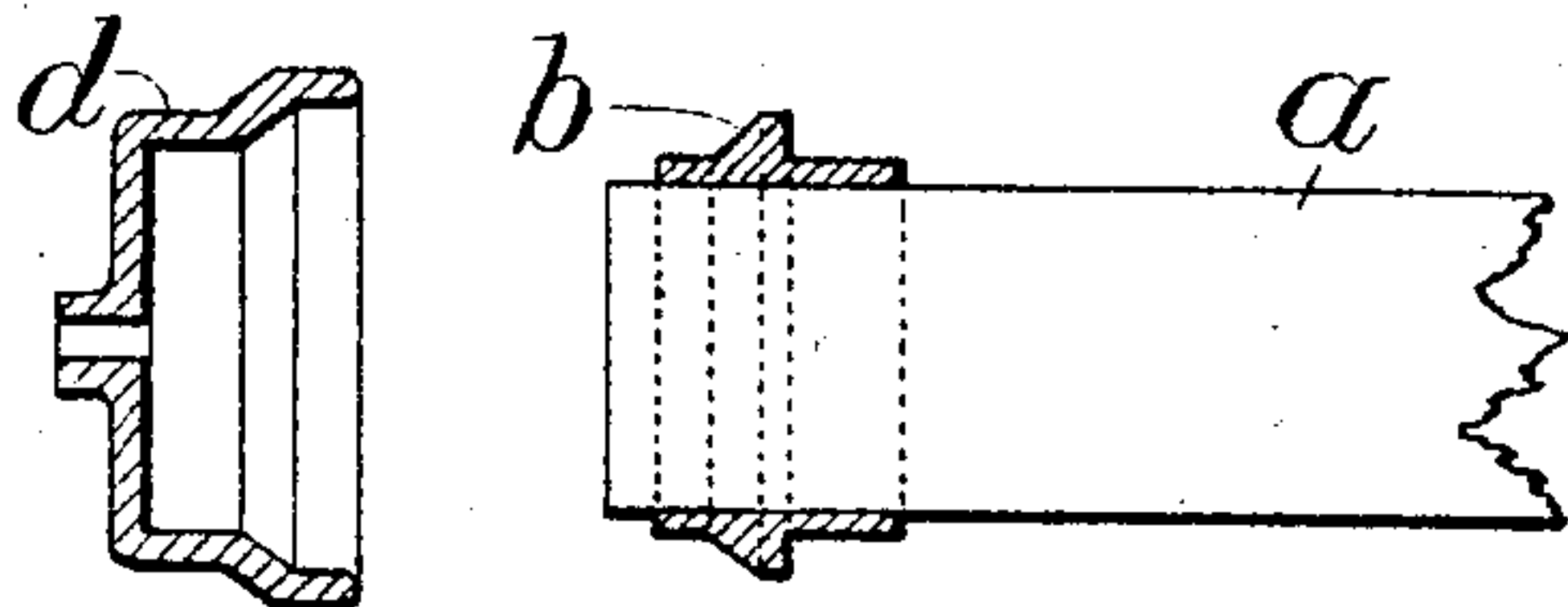


Fig. 5.

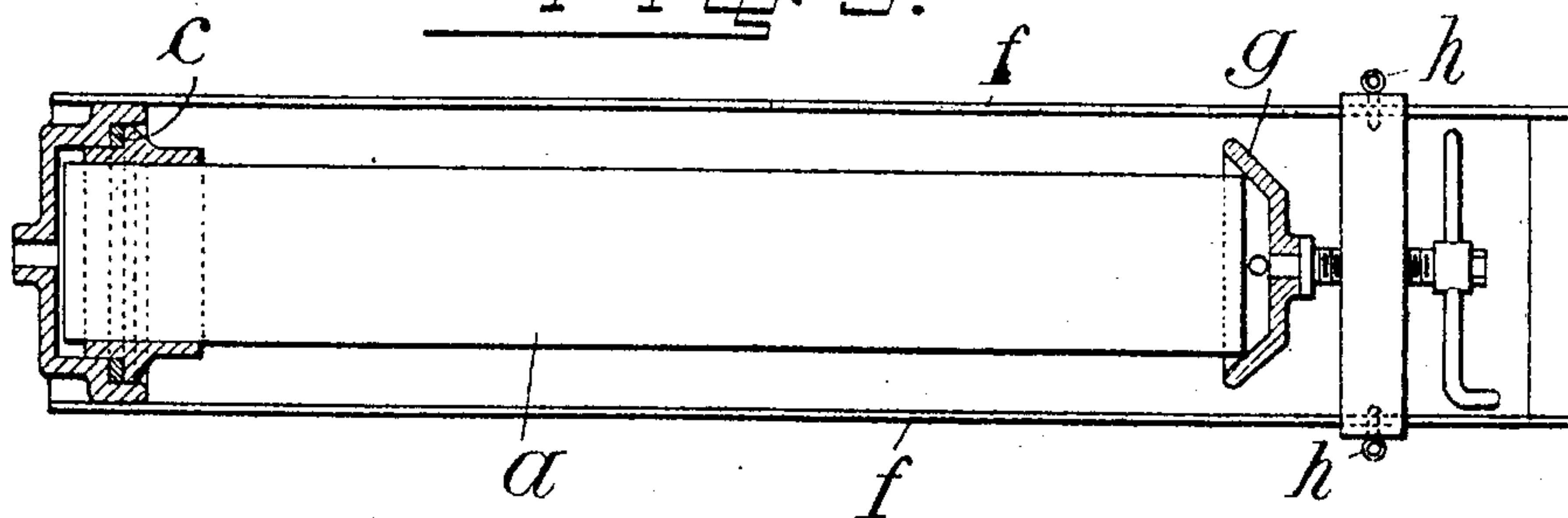
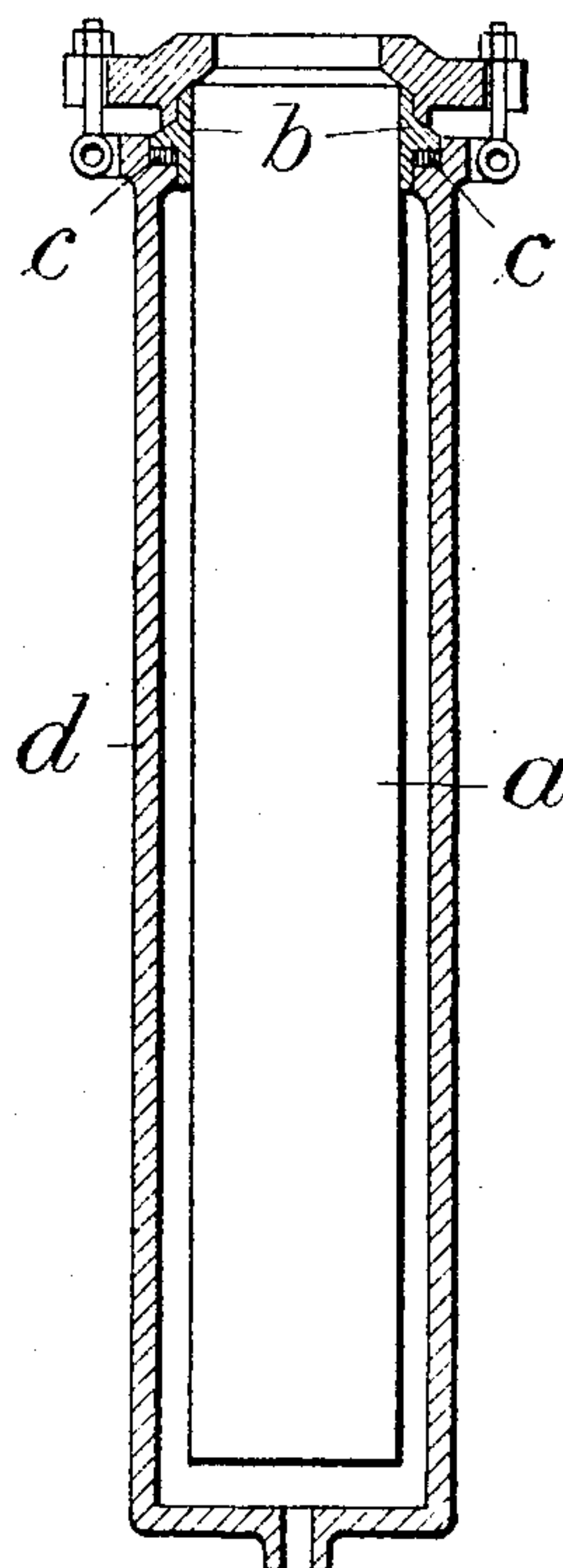


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE

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METHOD OF PRODUCING LIQUID-TIGHT JOINTS FOR IMPREGNATING WOOD.

No. 803,603.

Specification of Letters Patent.

Patented Nov. 7, 1905.

Application filed April 19, 1905. Serial No. 256,456.

To all whom it may concern:

Be it known that I, GEORG KRON, engineer, a subject of the Emperor of Germany, residing at 15 Rörholmsgade, Copenhagen, Denmark, have invented new and useful Improvements in Methods of Producing a Liquid-Tight Joint Between a Dyeing or Impregnating Vessel and a Block of Wood to be Dyed or Impregnated Therein, of which the following is a specification.

The present invention relates to a method of producing a liquid-tight joint between a dyeing or impregnating vessel and a block or trunk of wood introduced therein by one end for treatment by means of a liquid to be forced through it axially. For this purpose there has heretofore been employed around the trunk end an elastic ring of rubber or other suitable material, a method by which, however, a perfectly tight joint has never been accomplished, particularly when the section of the trunk has been very irregular. A packing material of said description, moreover, is not practicable where the dyeing or impregnating liquid is of a comparatively high temperature—for instance, about 100° centigrade.

According to the present invention a ring of some quickly-solidifying material—for instance, molten lead—is cast around the trunk to be dyed or impregnated, said material in cooling accurately closing up against the circumference of the trunk or block and being subsequently tightly connected with the dyeing or impregnating vessel, so that the liquid cannot leak out around the ring whether at its outer or at its inner circumference. Different materials may be employed for the said ring if only possessing the property of solidifying quickly around the trunk. If intended to be used for liquids of a high temperature, the material should of course be adapted therefor. Lead has proved to be very suitable.

In the accompanying drawings several forms of the invention are illustrated.

In the form shown in Figure 1 the trunk *a*, together with the leaden ring *b*, cast around it, is forced against the impregnating vessel *d*, so as to cause the ring to bear on a packing-ring *c* of asbestos or the like, it being noted that the ring *b*, owing to its contraction in cooling, will hug so tightly around the

trunk that a perfectly tight joint can be produced by merely pressing the trunk against the impregnating vessel, while at the same time any longitudinal motion of the trunk is prevented. To prevent any movement of the ring along the trunk, the end of the latter, as shown in Fig. 1, can be made tapering.

In the form shown in Fig. 2 the rim of the vessel *d* is turned to a sharp edge, and the ring *b* is provided with a corresponding depression into which the said edge penetrates when the trunk *a* is forced against the vessel, closure being thereby produced.

In Fig. 3 the ring *b* is provided with a tapering flange, which when the trunk is forced against the vessel *d* fits against the correspondingly-shaped rim of the latter.

In the form shown in Fig. 4 the trunk *a* is entirely inclosed in the vessel *d*. The ring *b* is here forced, by means of the clamping-ring *e*, against the impregnating vessel, which may either be provided with a special packing-ring *c* or, as in the vessels shown in Figs. 2 and 3, have a ring turned off to an edge or a tapered flange.

In Fig. 5 a mechanical device is shown for forcing the trunk against the impregnating vessel *d*. Two iron bars *f* are here secured to the vessel, and between these bars a cross-head provided with a clamping-disk *g* can be shifted. The cross-head can be secured by means of pins *h*, which are inserted into the cross-head through the perforated iron bars.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

In dyeing and impregnating wood in the shape of trunks or blocks, a method of producing a liquid-tight joint between the wood and the dyeing or impregnating vessel, characterized by casting a readily-solidifying material in the shape of a ring around the trunk or block which is subsequently forced together with the ring against the rim or wall of the vessel.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORG KRON.

Witnesses:

H. TELANDER,
J. B. MARKMAN.