(No Model.)

L. HAGMEYER.

AXLE LOCK FOR VEHICLES.

No. 538,372. Patented Apr. 30, 1895.

Fig. 3.

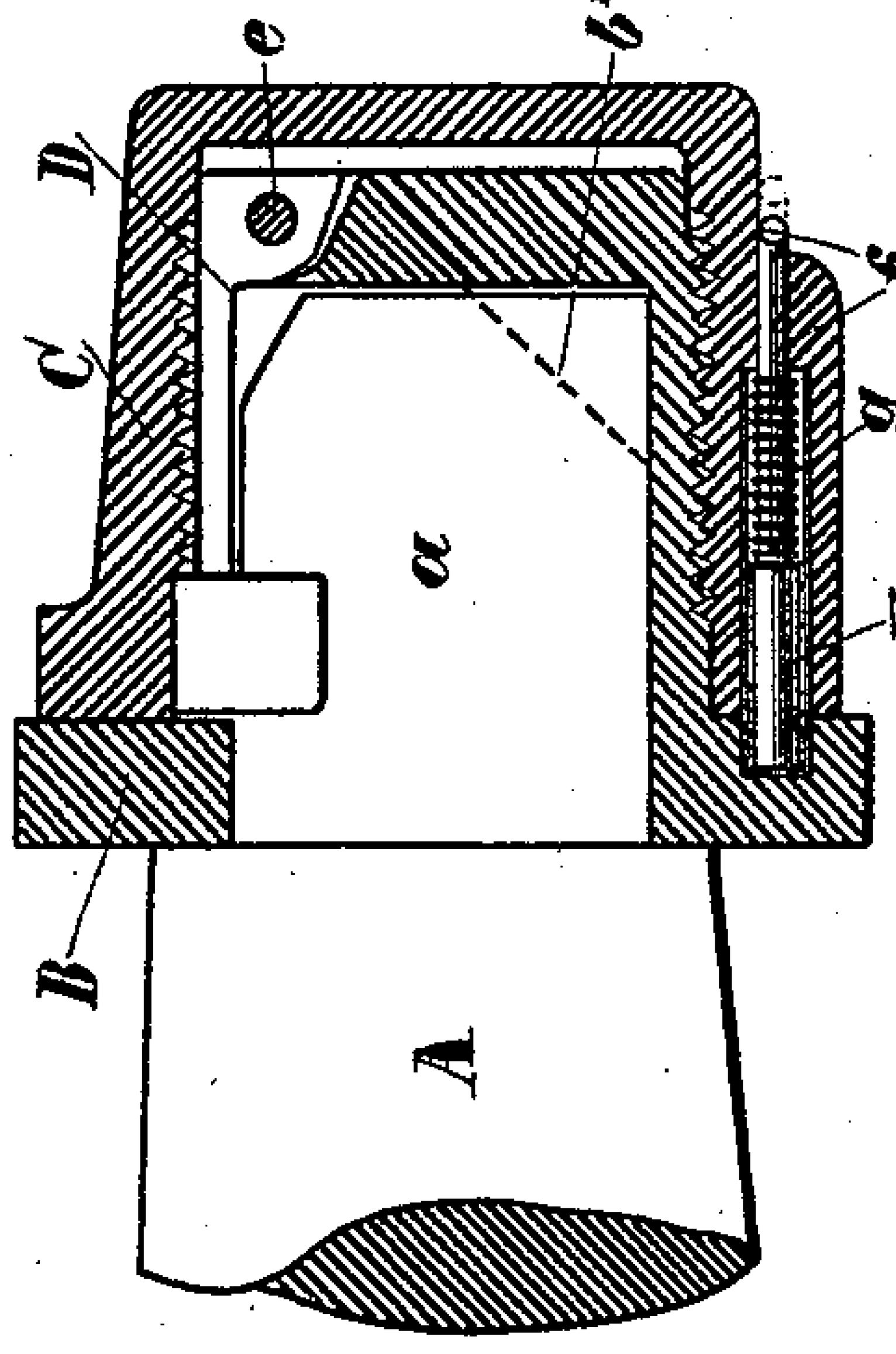


Fig. 6.

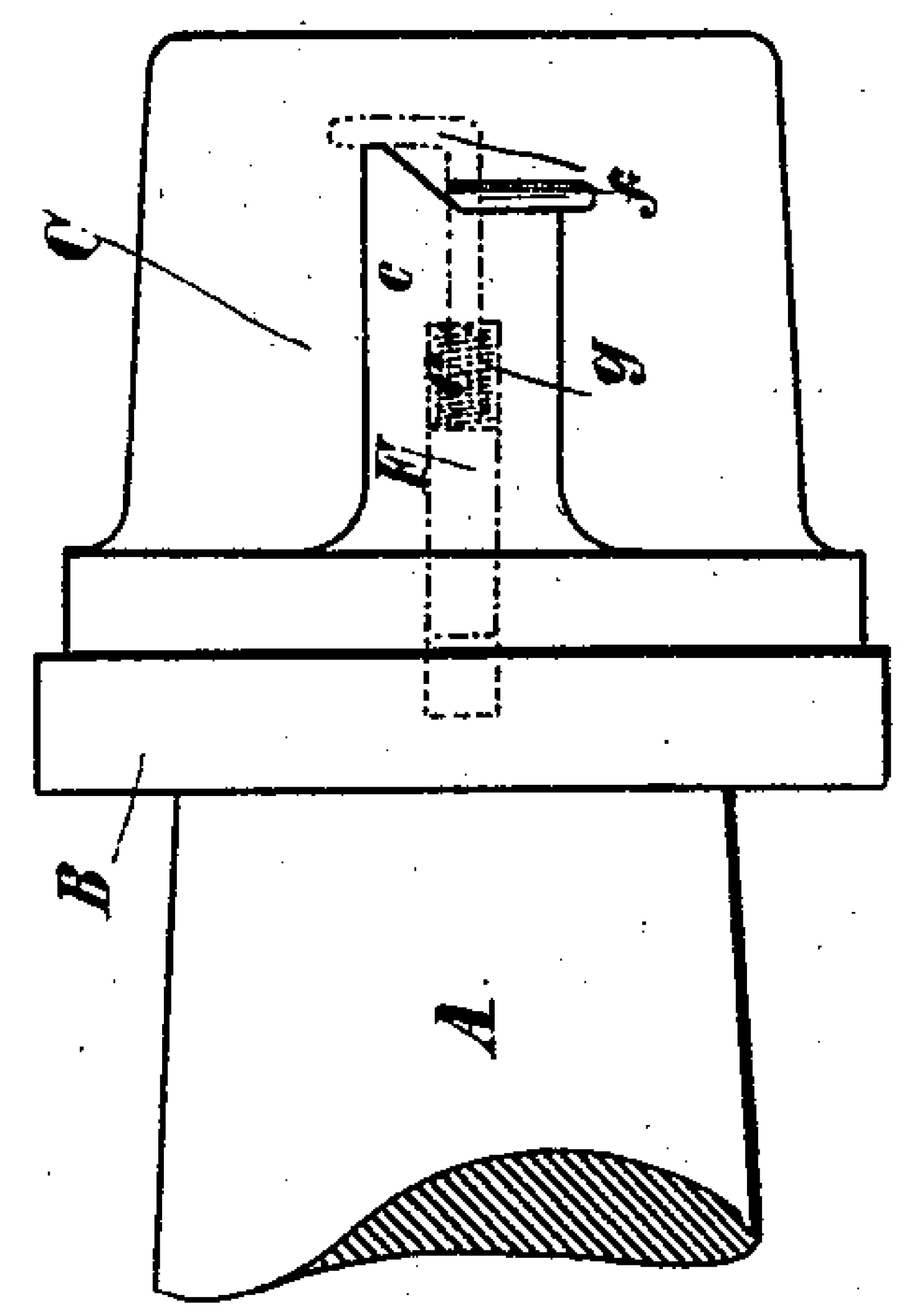


Fig. 2.

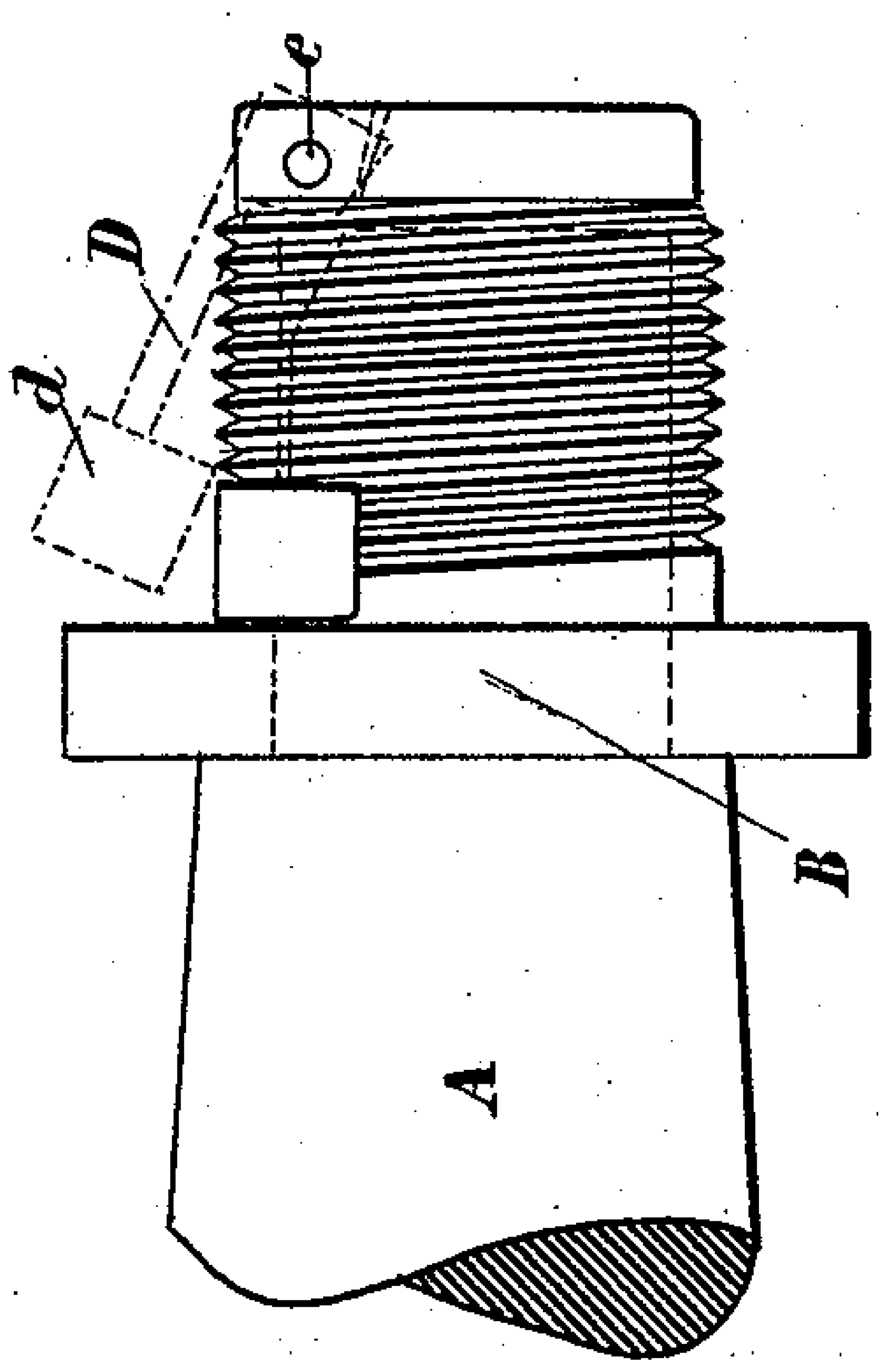


Fig. 5.

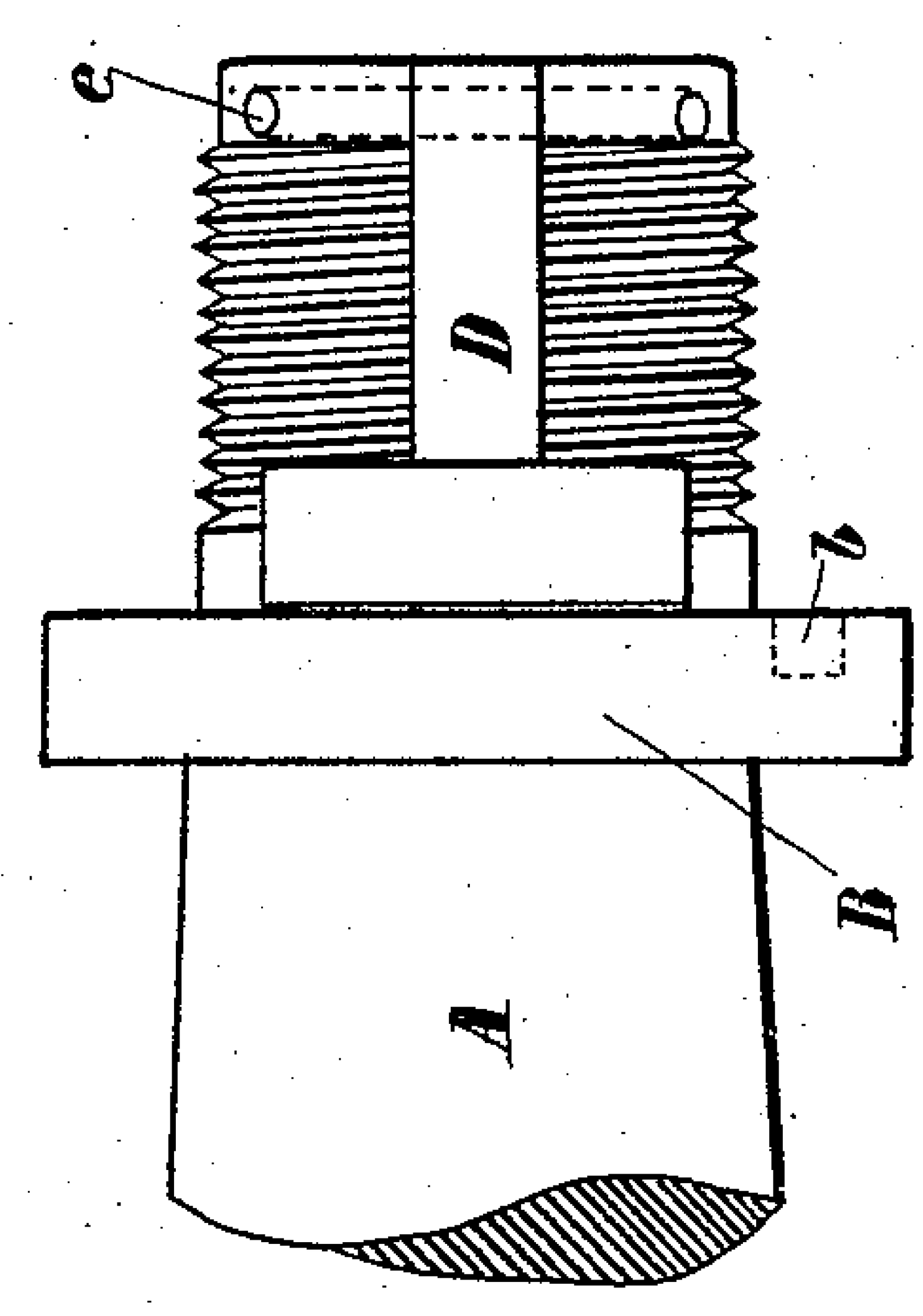


Fig. 1.

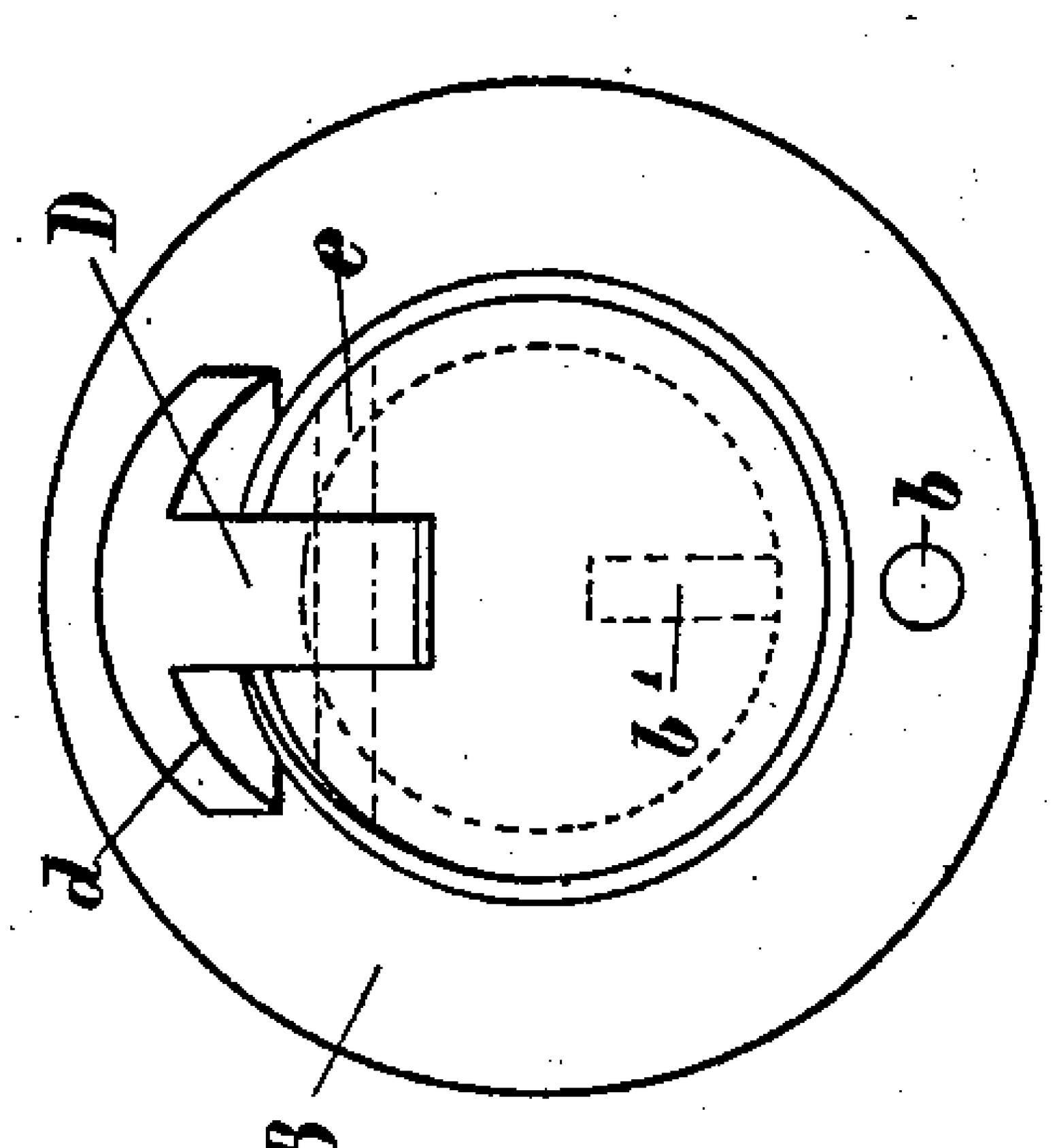
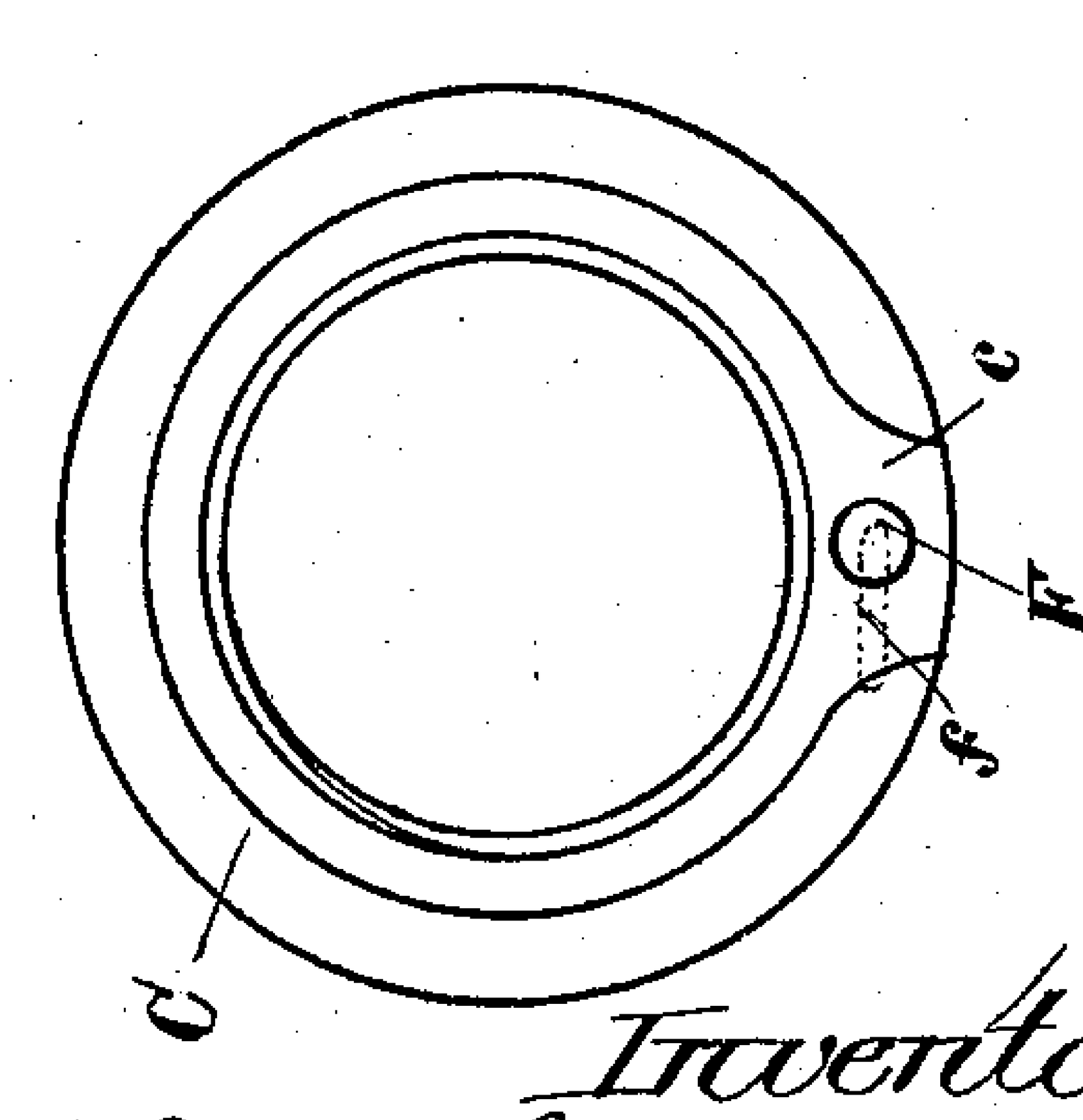


Fig. 4.



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Aw Long

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UNITED STATES PATENT OFFICE.

LEONHARD HAGMEYER, OF GEISLINGEN, GERMANY.

AXLE-LOCK FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 538,372, dated April 30, 1895.

Application filed May 29, 1894. Serial No. 512,928. (No model.)

To all whom it may concern:

Be it known that I, LEONHARD HAGMEYER, iron-dealer, of Geislingen-on-the-Steig, Würtemberg, Germany, have invented new and useful Improvements in Axle-Locks for Vehicles, of which the following is a specification.

The object of the hereinafter described axle lock for vehicles is particularly to provide a secure lock, dispensing with the employment of a screw-thread on the axle, so that, not only factories equipped for this purpose, but every blacksmith will be enabled to make the axles, as well as all necessary repairs, and also to construct and put in place missing or lost parts, the axle-boxes being made according to well-known systems.

In the accompanying drawings, an axle-lock embodying my invention is represented in Figures 1 to 6.

In the drawings, Fig. 1 is an end elevation of my improved device, with the cap, C, removed. Fig. 2 is a side elevation of the same. Fig. 3 is a sectional view, partly in elevation, showing the cap, C, in place. Fig. 4 is an end view of the cap, C. Fig. 5 is a plan view of the device with the cap, C, removed. Fig. 6 is a bottom plan view of the device, with the cap in place.

The securing proper of the axle-box to the axle, A, is effected by a locking box or thimble, B, which is slipped over the axle-end, *a*, until it rests against the thicker portion of the axle. When the thimble is in this position, a T-shaped locking-head or catch, D, represented as hinged to the thimble on the pivot, *e*, engages a transverse slot in the axle-end, *a*, with its forward transverse portion, *d*, thereby holding the thimble, B, fast to the axle, A. The thimble, B, is provided with an external screw-thread, onto which the securing box or cap, C, is screwed into place until its front portion bears closely against the thimble, B. The catch, D, is held in place and prevented from swinging upward by the securing thimble screwed into place over the same. To prevent the locking cap, B, from turning when the securing thimble, C, is screwed into position over the same, the said locking thimble, B, is provided with a rib or flange, *b'*, engaging a corresponding slot in the axle-end, *a*.

Instead of a T-shaped catch, D, hinged to the thimble and provided with a cross-head, *d*, a simple locking-bolt or pinion, of any desired cross-section, may be inserted through the thimble, B, into the axle-end, *a*, the latter being provided with a suitable hole for this purpose, the locking pin in turn being again prevented from falling out by the securing cap, C. To prevent the latter from working loose, the same is provided with a spring locking-bolt, F, arranged and guided in a projection, *c*, of the same and adapted to engage a perforation, *b*, in the locking thimble, B.

To release the securing-cap, C, the same is first disengaged by withdrawing the locking-bolt, F. This locking-bolt is reduced at its rear, the reduced portion being encircled by a spring, *g*, arranged behind the thicker portion. The reduced portion, *f*, passes through the projection, *c*, of the cap and is bent over on the outside of the same. The projection, *c*, is provided with an incline, *c'*, which adjoins a shoulder which is perpendicular to the bolt, F. On turning or swinging the bolt, the bent portion, *f*, of the same, first slides upward on the incline, *c'*, of the projection, *c*, until the bolt, F, has been completely withdrawn from the hole, *b*, of the box or thimble, B. On still further turning the bolt, the same is automatically retained in this position, by reason of the fact that the bent portion, *f*, comes to rest upon the straight portion of the projection, *c*. The cap or box, C, is then unscrewed, the cross-head, *d*, of the catch, D, lifted out, or the locking-bolt withdrawn, and the locking thimble, B, also drawn off, whereby the axle is unlocked.

The cap, C, may, of course, be secured to the thimble, B, in other ways than by the spring-pressed bolt, F.

What I claim, and desire to secure by Letters Patent, is—

1. In an axle lock for vehicles, the combination, with an axle having a reduced end provided with a transverse slot, and an externally-threaded locking thimble arranged to fit over said reduced end, and provided with a T-shaped slot, of a T-shaped catch pivoted in the said T-shaped slot and having its head arranged to engage the transverse slot in the axle, and a cap having an internal

screw thread engaging the external thread on the locking thimble, substantially as set forth.

2. In an axle lock for vehicles, the combination, with an axle having a reduced end provided with a transverse slot, and an externally-threaded locking thimble arranged to fit over said reduced end, and provided with a T-shaped slot, of a T-shaped catch pivoted in the T-shaped slot and having its head arranged to engage the transverse slot in the axle, a cap threaded onto the locking thimble and provided with a pair of plane surfaces and an inclined surface joining said plane surfaces, and a spring bolt passing through the cap and engaging the thimble, said spring bolt having a head arranged to engage the plane surfaces or the inclined surface, substantially as set forth.

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

LEONHARD HAGMEYER.

Witnesses:
AUGUST B. DRANTZ,
ARTHUR HOFMANN.