

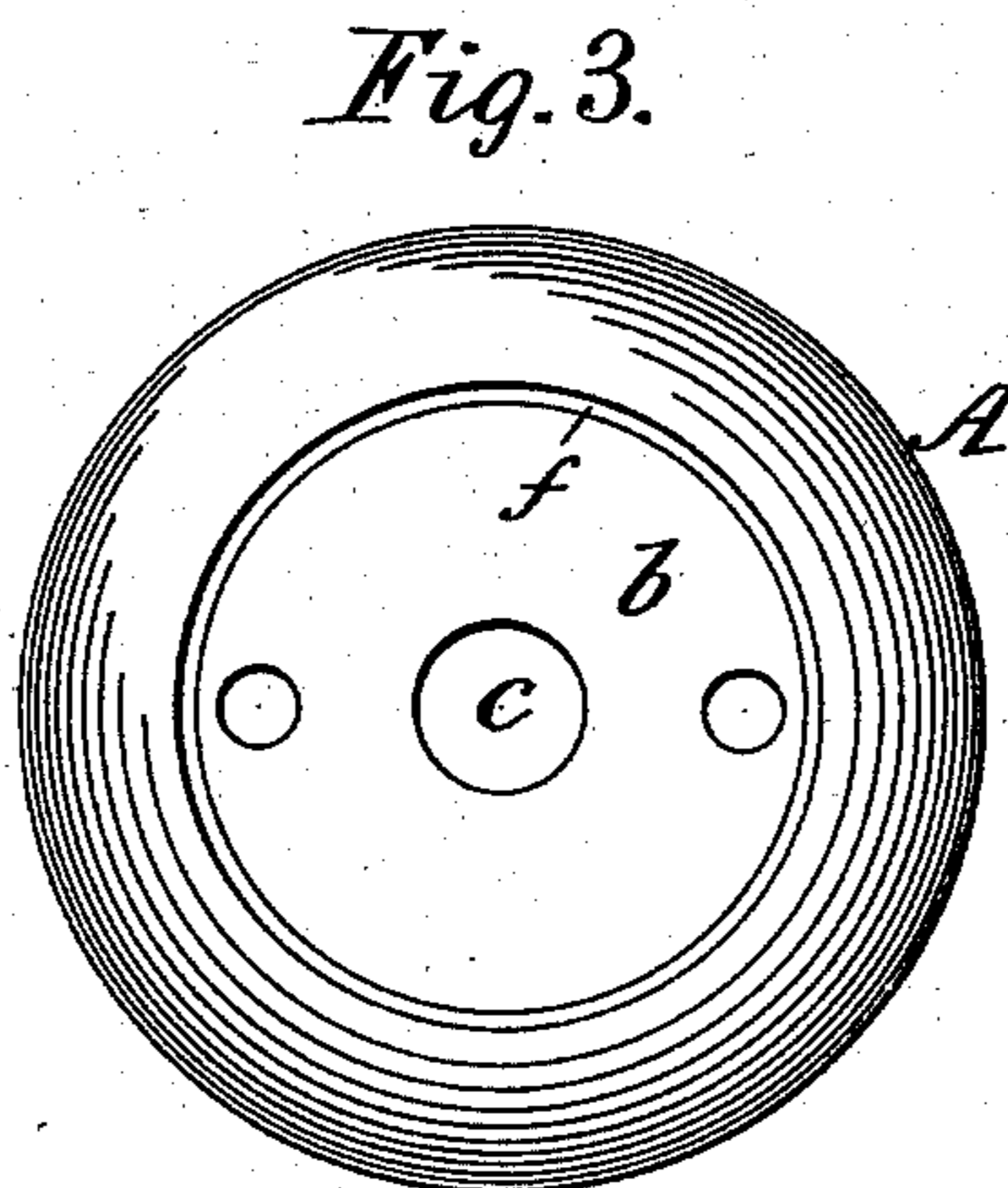
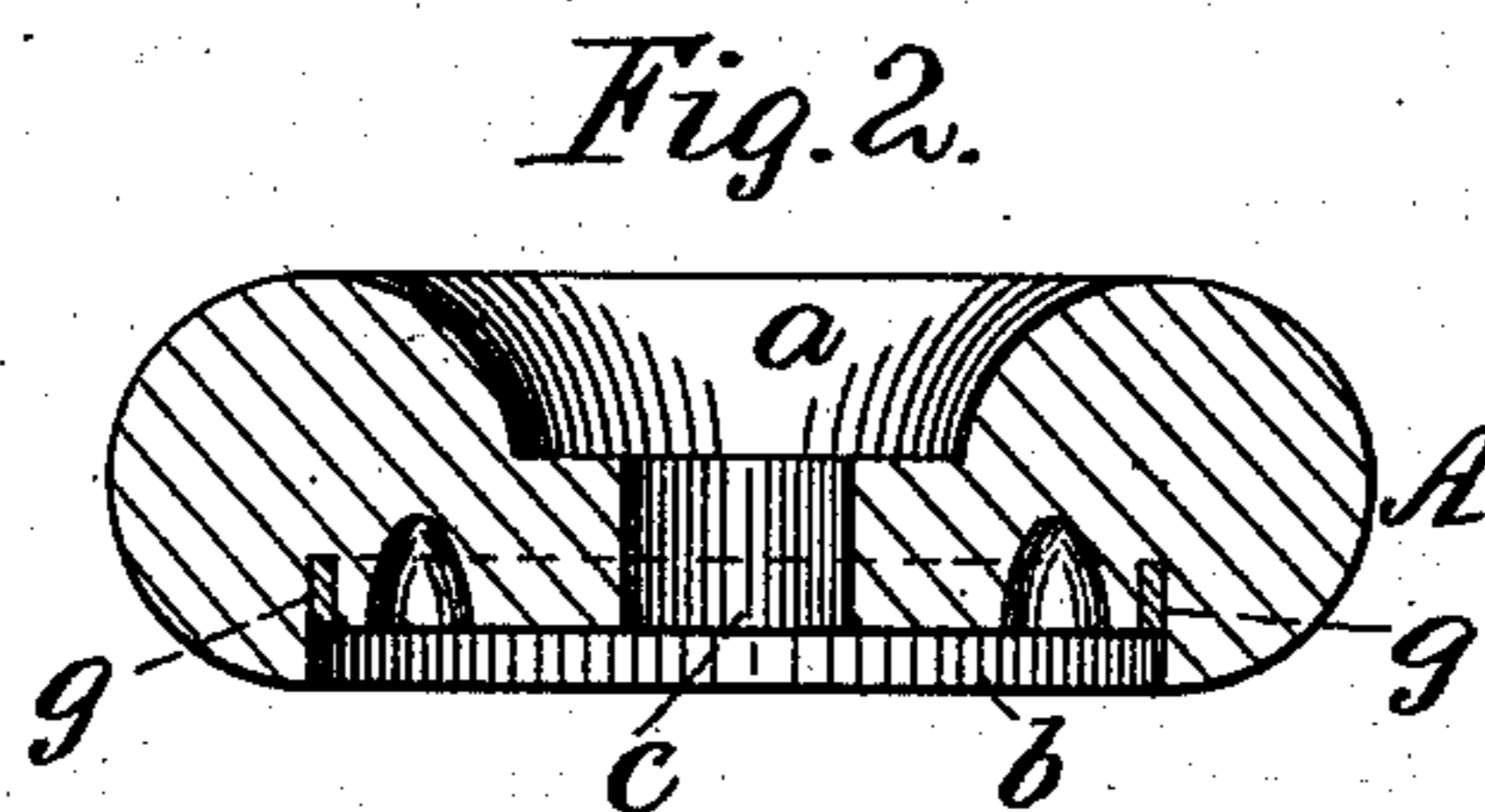
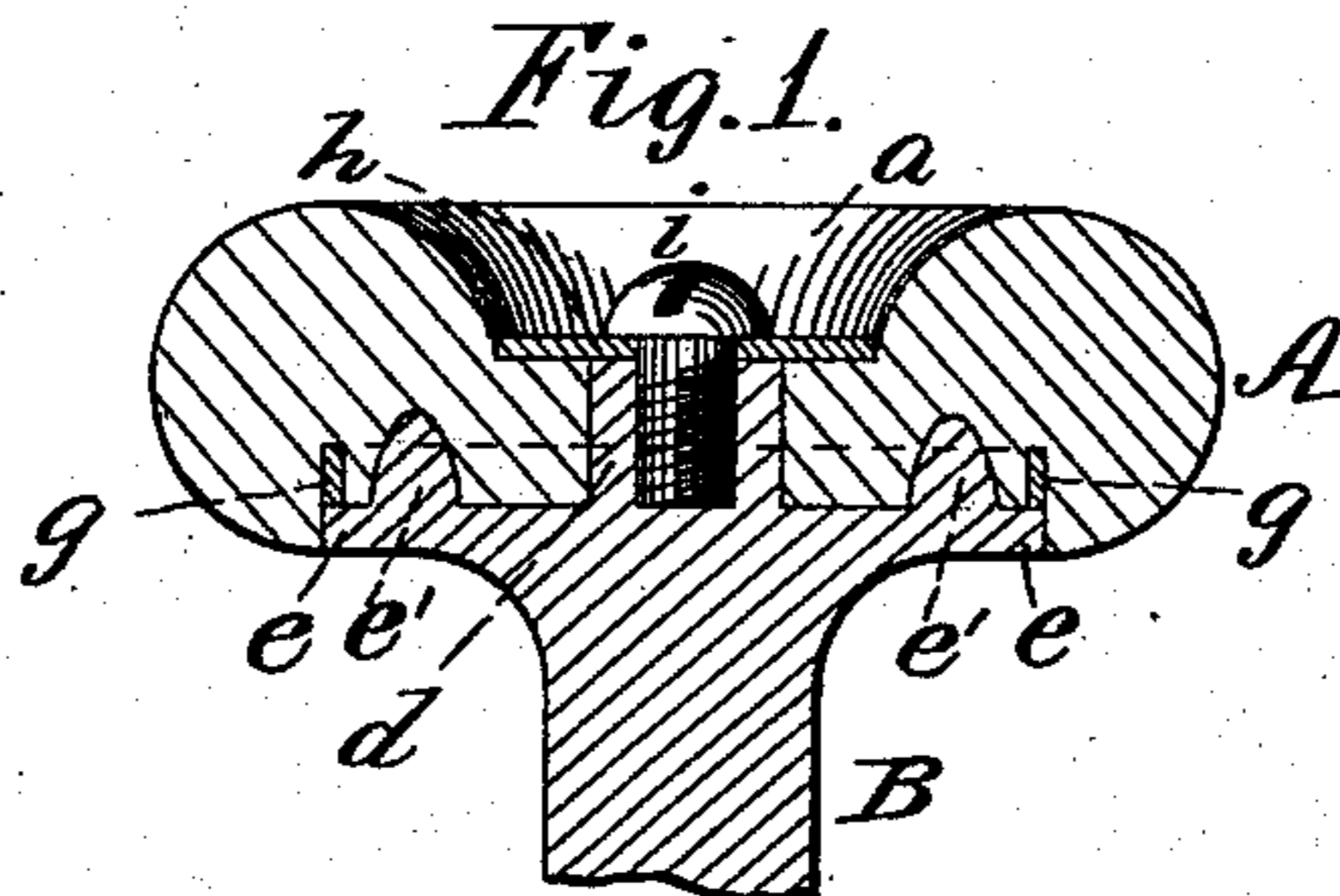
(No Model.)

J. W. BECKER.

NON CONDUCTING HAND WHEEL FOR COCKS, &c.

No. 413,313.

Patented Oct. 22, 1889.



Witnesses:  
W. C. Jirdinston.  
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Inventor:  
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# UNITED STATES PATENT OFFICE.

JOHN W. BECKER, OF CINCINNATI, OHIO.

## NON-CONDUCTING HAND-WHEEL FOR COCKS, &c.

SPECIFICATION forming part of Letters Patent No. 413,313, dated October 22, 1889.

Application filed May 17, 1889. Serial No. 311,101. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN W. BECKER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Non-Conducting Hand-Wheels for Cocks, Valves, and other Steam-Fittings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to those non-conducting hand-wheels intended to be attached to the stems or spindles of cocks or valves for steam-fittings, to enable the latter to be opened and closed without burning the hand. These wheels, which are usually made of wood, are apt to be split by the heat and thus rendered useless unless re-enforced by some metal binder; and the object of my invention is to apply such a binder in the construction of the wheels, which is both novel and efficient.

The novelty of my invention will be herewith set forth, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a central sectional elevation of a hand-wheel connected to the upper portion of a valve-stem and embodying my invention. Fig. 2 is a corresponding view of the hand-wheel alone with its metal binder. Fig. 3 is a bottom plan view of the hand-wheel.

The same letters of reference are used to indicate identical parts in all the figures.

A represents a hand-wheel of wood or other suitable material usually turned in a lathe, with a periphery rounded in cross-section and with an upper central depression *a* and a lower concentric depression *b*. (See Fig. 2.) There is a central aperture *c* for the insertion of the shank *d* of the valve-stem B, which fits tightly therein with a flange-plate *e*, provided on its upper face with locking-detents *e'*, snugly filling the depression *b*, with the detents *e'* embedded in the handle.

In the construction of the handle I cut a circular kerf *f*, Fig. 3, in the depression *b* at its circumference, extending up into the hand-wheel to about the middle of the point of strain, which in wheels of ordinary size would be about an eighth of an inch in depth, and into this kerf I force tightly a metal ring *g*, Figs. 1 and 2, which ring, when the hand-wheel is applied to the shank of the valve-stem, as seen in Fig. 1, is covered and locked

in place by the flange *e*. A washer *h* is fitted into the upper depression *a*, and a machine-screw *i* is inserted through said washer and into the tapped end of the shank to lock all the parts securely together. The head of the screw, it will be observed, is below the top of the wheel, so that the latter may be firmly grasped by the hand without danger of contact with the hot metal in operating the valve or other fittings. The ring *g*, thus embedded in the wheel well out toward its periphery and in the horizontal plane of greatest strain, serves to bind the wood or other material of the hand-wheel, to prevent the latter from splitting or falling apart if split.

I am aware of the construction shown in Patent No. 383,474, of May 29, 1888, and do not claim the same; but,

Having thus fully described my invention, I claim—

1. A non-conducting hand-wheel for valves and steam-fittings, having on its under side a central circular aperture for the reception of the disk or flange-plate of the valve-stem, and having also a circular kerf or groove *f* above or within said aperture, combined with an independent ring *g*, inserted in said kerf or groove inside of said aperture, substantially as set forth.

2. The combination, with a valve-stem having a disk or flange-plate *e*, provided with the detents or projections *e'*, of a non-conducting hand-wheel having on its under or inner side an aperture *c* for the reception of said disk or flange-plate, and a kerf or groove *f* above or within said aperture, and on its upper or outer side a recess or central aperture *a*, the washer *h* in said aperture *a*, the ring *g*, inserted in said kerf or groove, and the attaching-screw *i*, having its head within the upper or outer face of the hand-wheel.

3. The combination, with a valve-stem having a disk or flange-plate *e*, of a non-conducting hand-wheel having on its under side the aperture for the reception of said disk or flange-plate, and having also a circular groove or kerf *f* above or within said aperture or disk, and the metal ring *g*, independent of or separate from said disk or flange-plate and fitting in said groove or kerf.

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Witnesses:

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