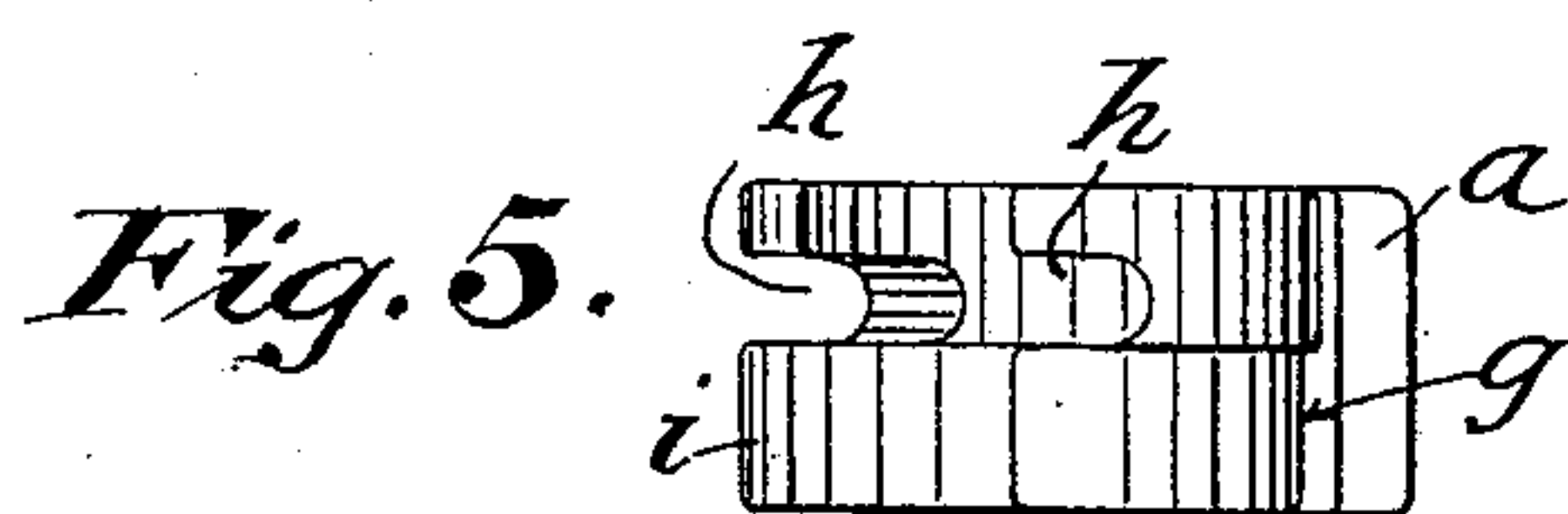
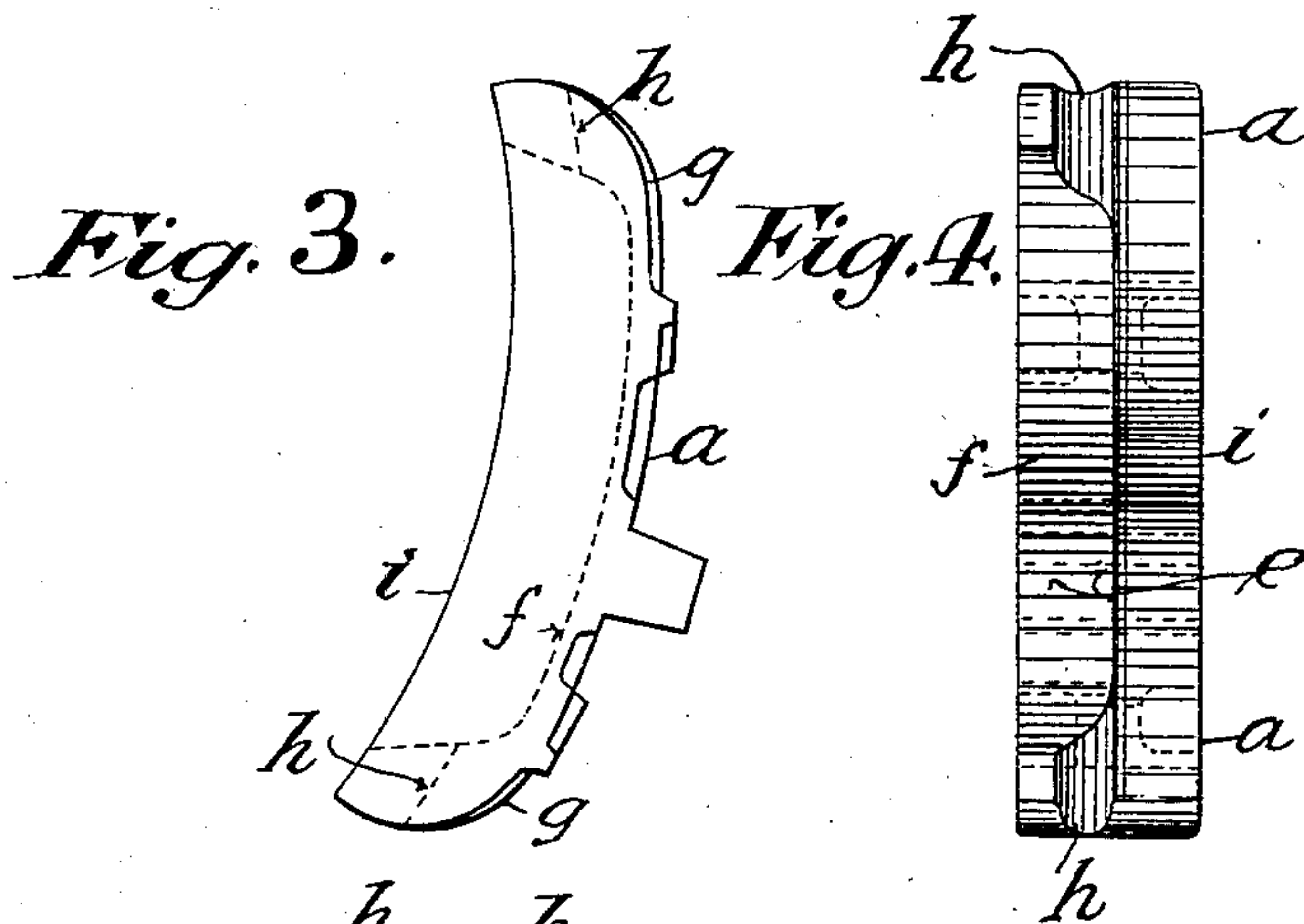
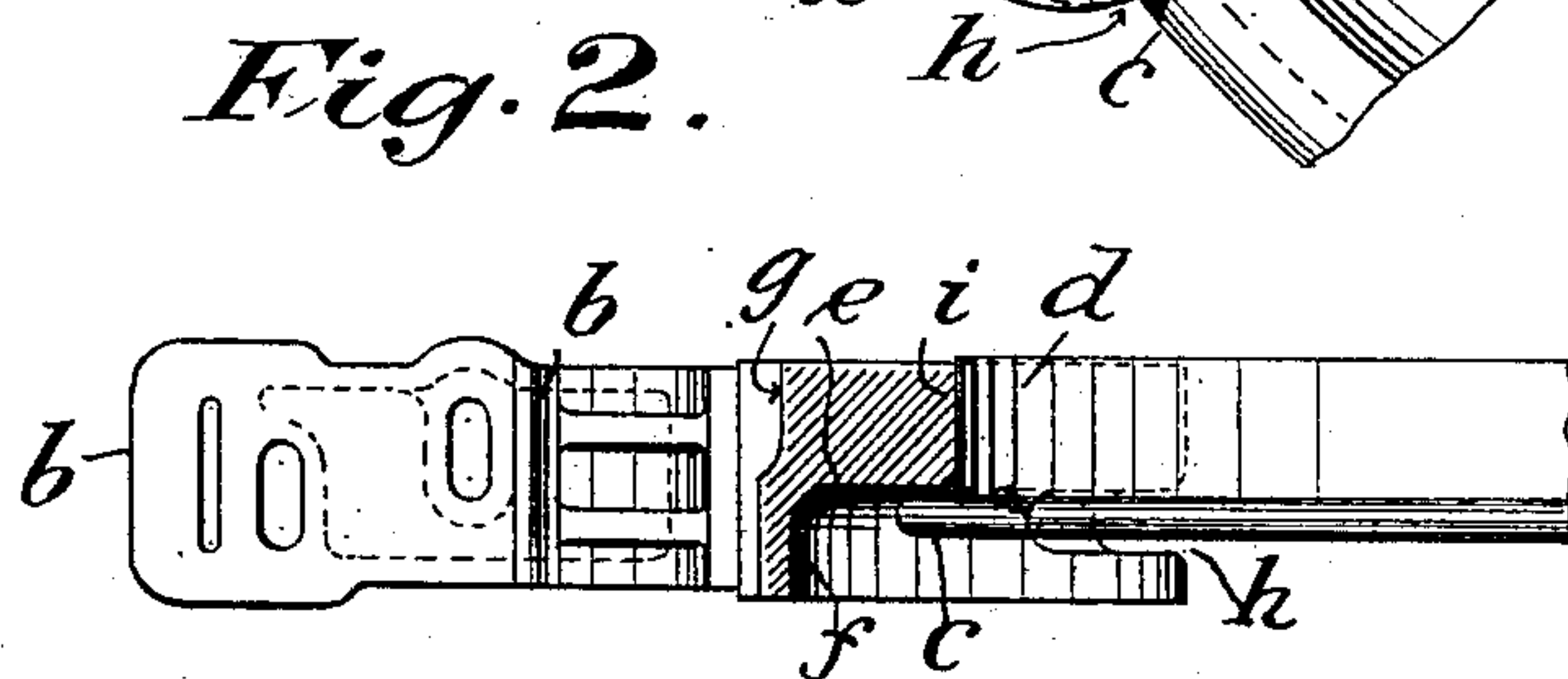
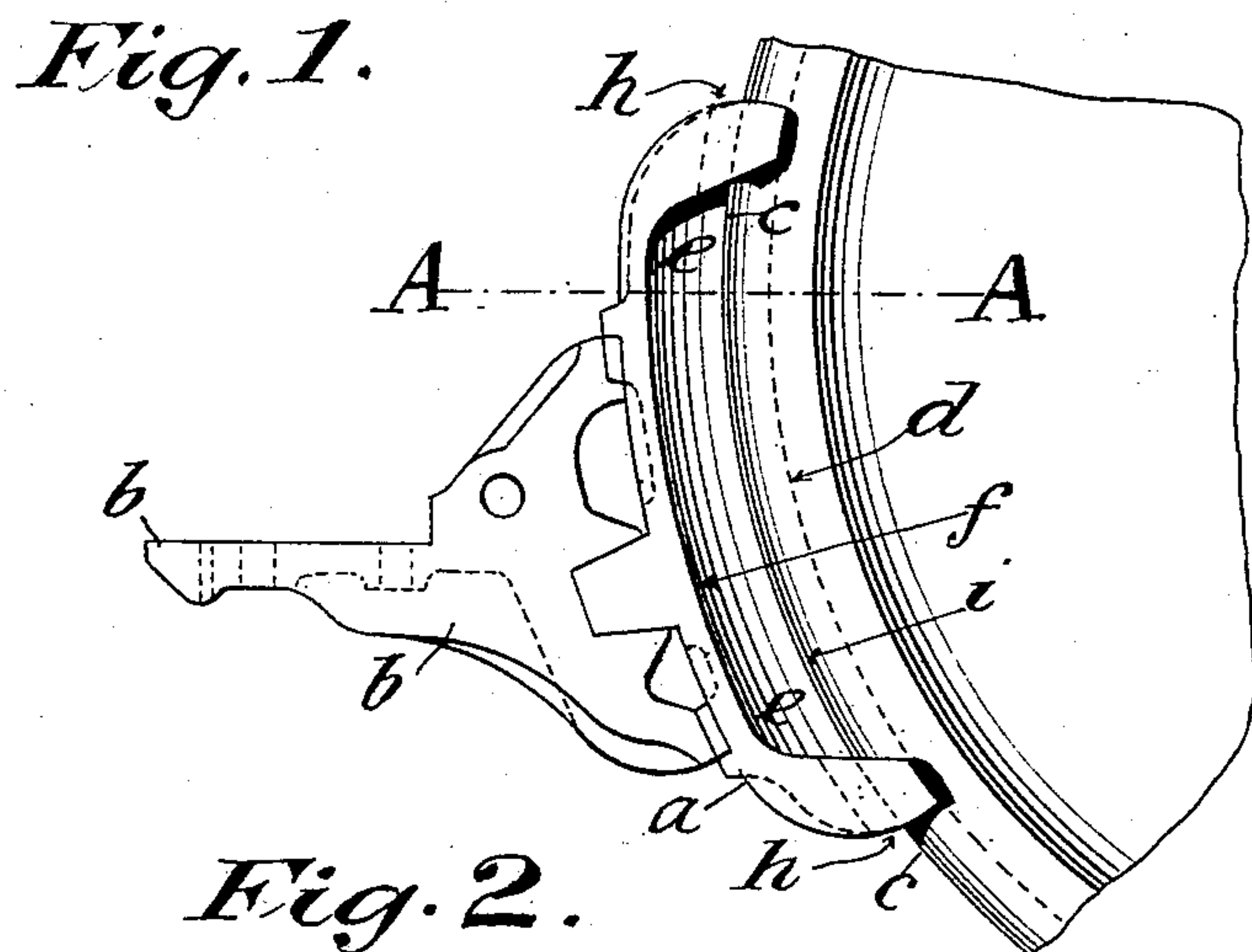


BRAKE SHOE FOR THE WHEELS OF VEHICLES.

APPLICATION FILED MAY 22, 1908.

912,369.

Patented Feb. 16, 1909.



Witnesses:
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UNITED STATES PATENT OFFICE.

JAMES EARLAM, OF STOCKPORT, AND JOSEPH WILD, OF BLACKLEY, ENGLAND.

BRAKE-SHOE FOR THE WHEELS OF VEHICLES.

No. 912,369.

Specification of Letters Patent.

Patented Feb. 16, 1909.

Application filed May 22, 1908. Serial No. 434,400.

To all whom it may concern:

Be it known that we, JAMES EARLAM and JOSEPH WILD, subjects of Great Britain, residing at Stockport, in the county of Chester, and Blackley, in the county of Lancaster, both in the Kingdom of Great Britain, have invented new and useful Improvements in Brake-Shoes for the Wheels of Vehicles, of which the following is a specification.

Brake shoes for the wheels of vehicles have hitherto been constructed to act on the flange and the rim of the wheel. In practice it has been found that such shoes do not readily free the wheel when withdrawn as they stick to the flange, which causes the car to jerk frequently and is a great annoyance to passengers.

The object of our invention is the construction of a brake shoe in which the said defects are overcome and which requires considerably less weight of metal. We attain this object by the mechanism illustrated in the accompanying drawing, in which—

Figure 1 is a front view of a brake shoe constructed in accordance with our invention shown attached to the usual bracket carrying it and in contact with a tram car wheel. Fig. 2 is a sectional plan of Fig. 1 on line A—A. Figs. 3, 4 and 5 are respectively a back side view, edge view, and plan of our improved brake shoe separate.

Similar letters refer to similar parts throughout the several views.

a is the brake shoe, *b* the brake shoe bracket, *c* the flange, and *d* the rim of the wheel.

In carrying out our invention and referring to the figures generally, we cast our improved brake shoe *a* as generally is the case in one piece but instead of allowing the flange *c* of the wheel to come into contact with the whole length of the brake shoe, we form at that part adjacent to the part of the shoe adapted to act upon the rim *d* of the wheel, a segmental or similar cavity or recess *e*, completely open at the inner side. The bottom *f* of this cavity or recess is at such a depth as to be nearly level with the back *g* of the part of the shoe acting on the rim *d* of the wheel, see more particularly Fig. 2, so that the latter can be nearly worn through without the flange of the wheel coming into contact with the bottom of the said cavity or recess. This cavity or recess extends to near each end of the shoe and the

shoe has in each end a slot *h*, see more particularly Figs. 4 and 5, which receives the flange of the wheel and thereby holds the shoe laterally in position, thus liberating the inner side of the flange of the wheel practically along the whole length of the respective side of the brake shoe. The depth of the said slots relative to the part *i* of the shoe which acts upon the rim of the wheel when the brake is applied is such that the side thereof opposite the periphery of the flange of the wheel will not touch the flange for some time after the shoe has been first fitted to the brake. If desirable the back of the shoe acting upon the rim of the wheel as well as the back of the said cavity or recess may have ribs or strengthening pieces.

The improved construction of brake shoe described causing less friction, not only permits of starting a car quicker, the shoe releasing the wheel more readily, but in stopping a car owing to the wheel being not liable to lock, skidding is also prevented.

We are aware that previous to our invention it has been proposed to produce a brake shoe having a number of cavities which however were of such a form as to leave the whole length of the shoe in contact with both sides of the flange.

We claim:

1. A brake shoe for the wheels of vehicles having a cavity opposite the flange of the wheel forming a slot in each end to receive the flange, the said cavity being completely open at its inner side so that only the ends of the shoe will receive the flange of the wheel, all substantially as and for the purpose set forth.

2. A brake shoe for the wheels of vehicles having a cavity opposite the flange of the wheel forming a slot in each end to receive the flange, the said cavity being completely open at its inner side so that only the ends of the shoe will receive the flange of the wheel and of such a depth that its bottom is nearly level with the back of the shoe acting upon the rim of the wheel, all substantially as and for the purpose set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JAMES EARLAM.
JOSEPH WILD.

Witnesses:

ALFRED BOSSHARDT,
STANLEY E. BRAMALL.