

No. 625,671.

J. H. GOSS & G. W. EDDY.
BELL HAMMER.

Patented May 23, 1899.

(Application filed Nov. 7, 1898.)

(No Model.)

Fig. 1.

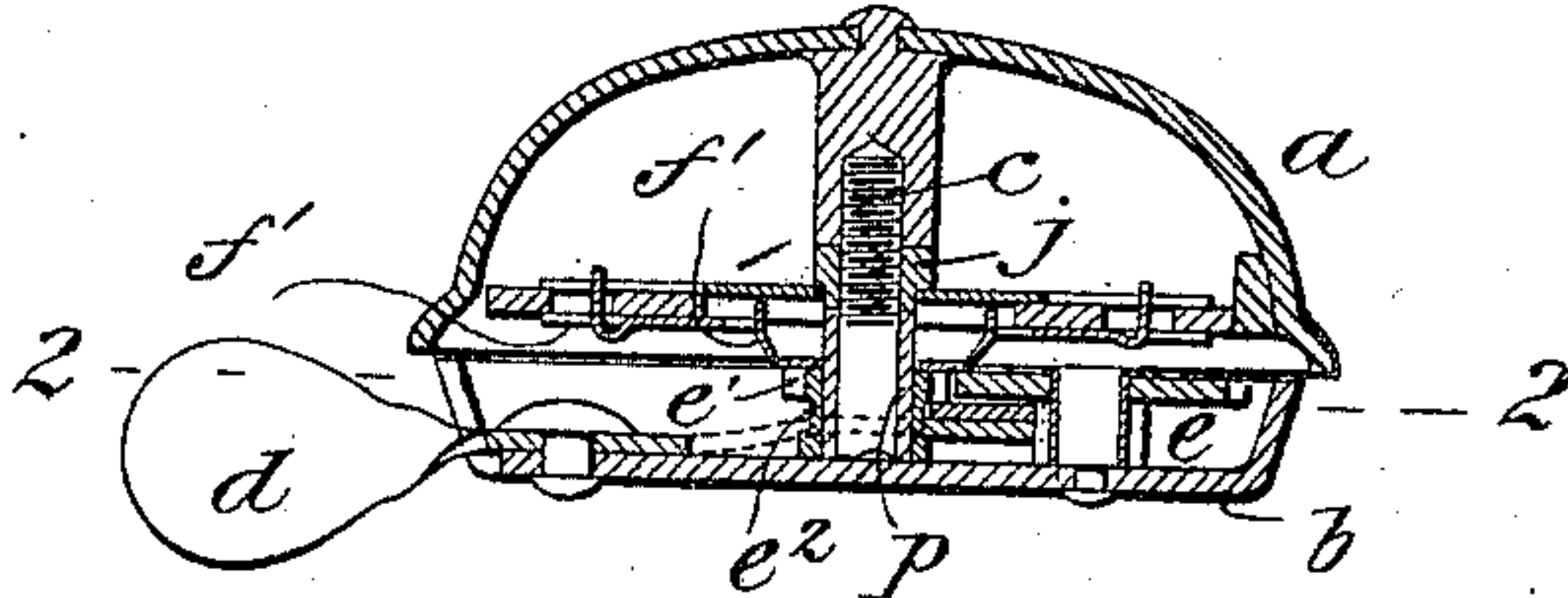


Fig. 2.

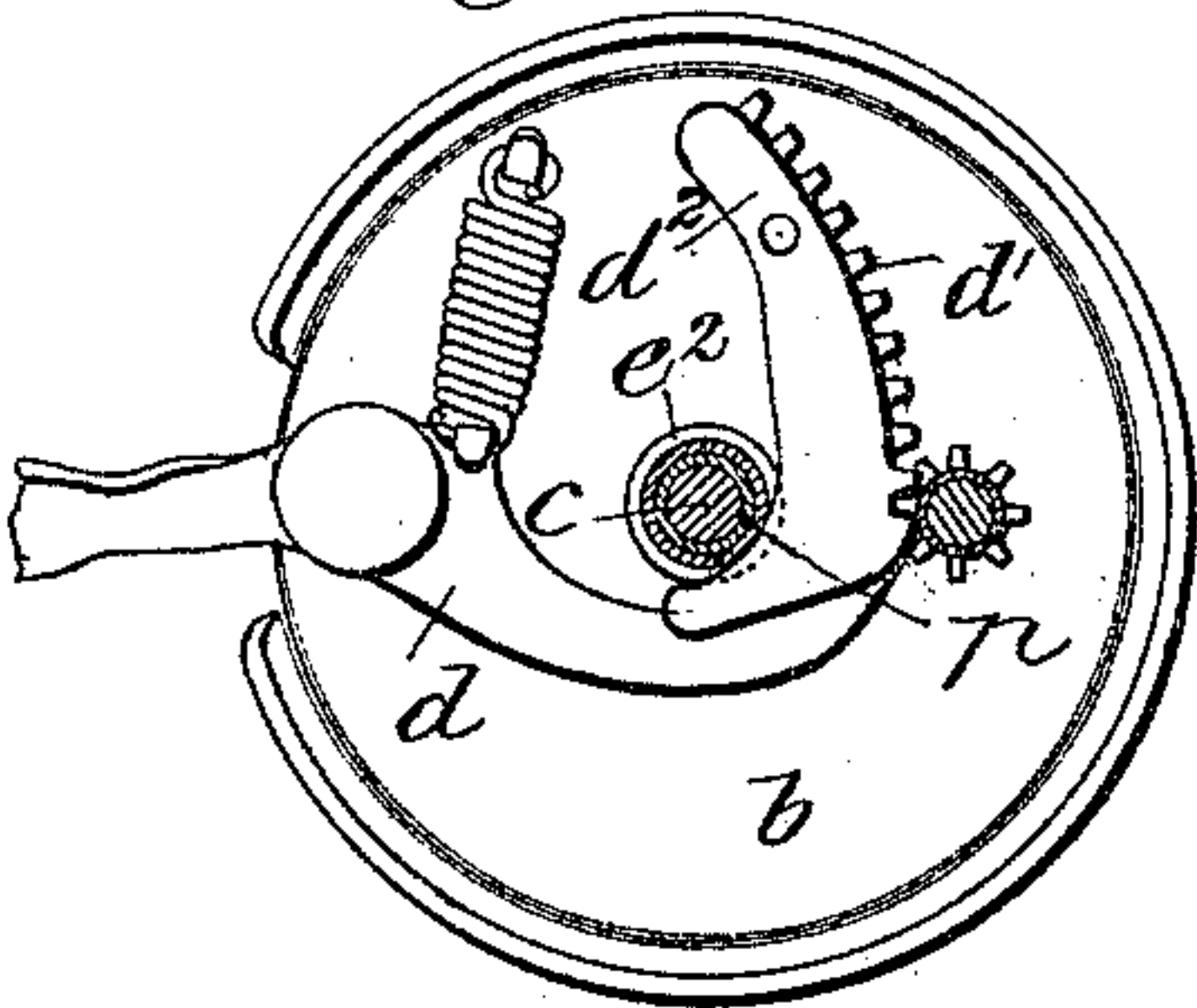


Fig. 3.

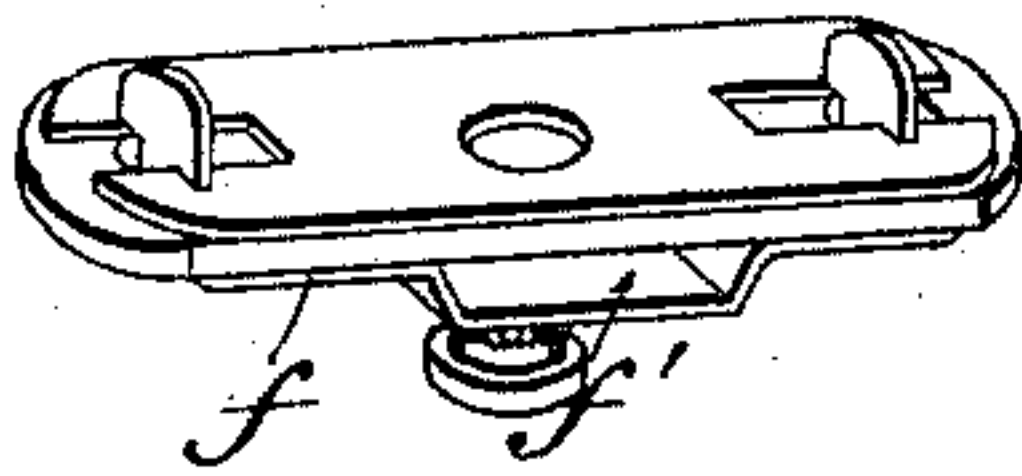


Fig. 4.

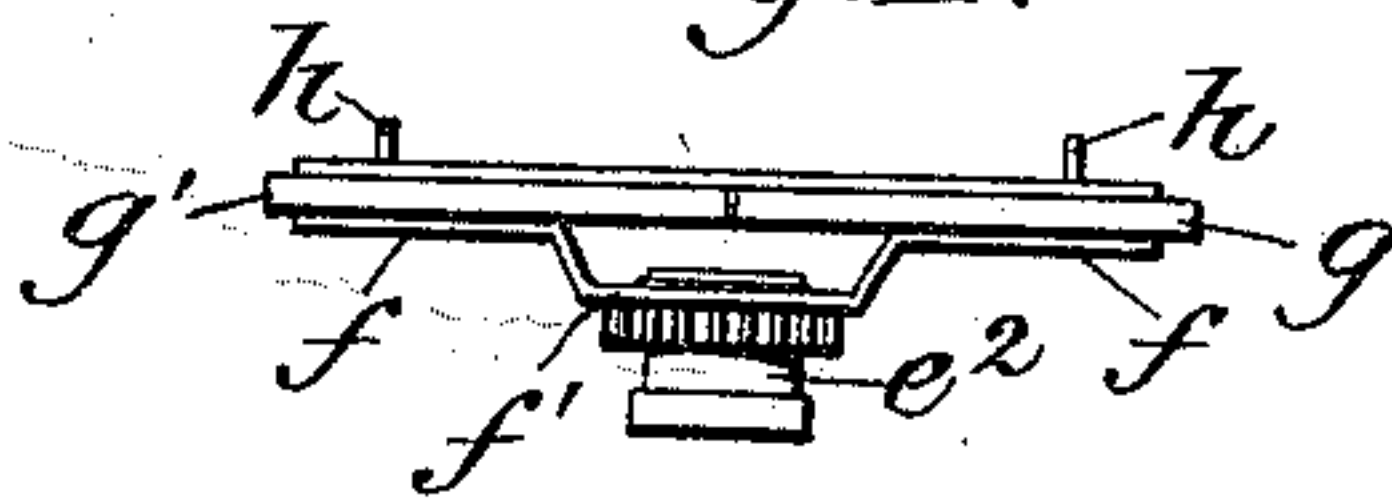


Fig. 6.

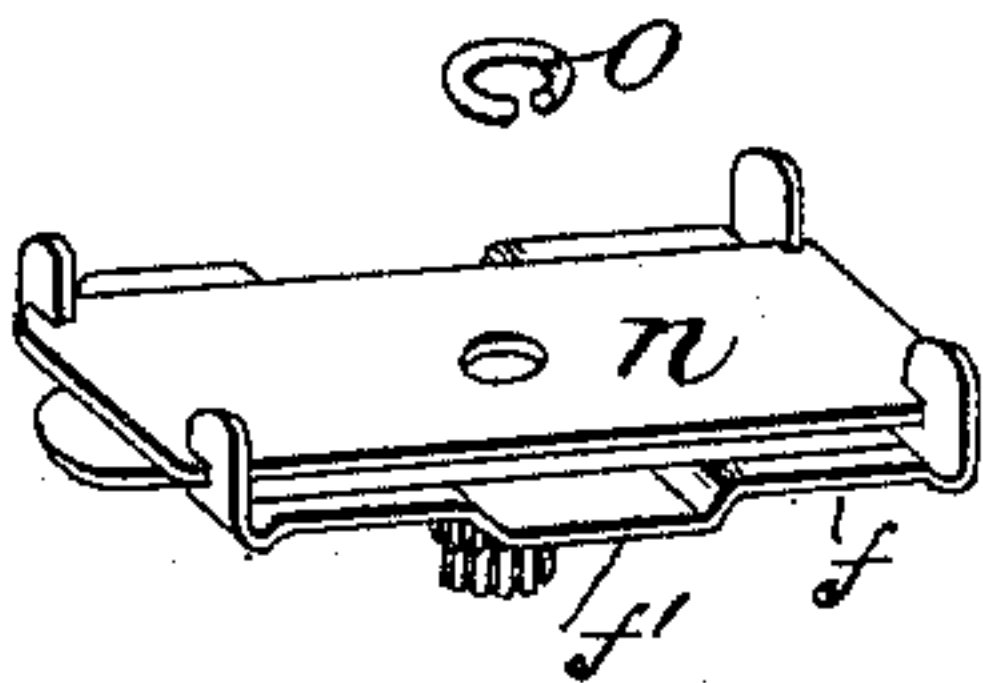


Fig. 7.

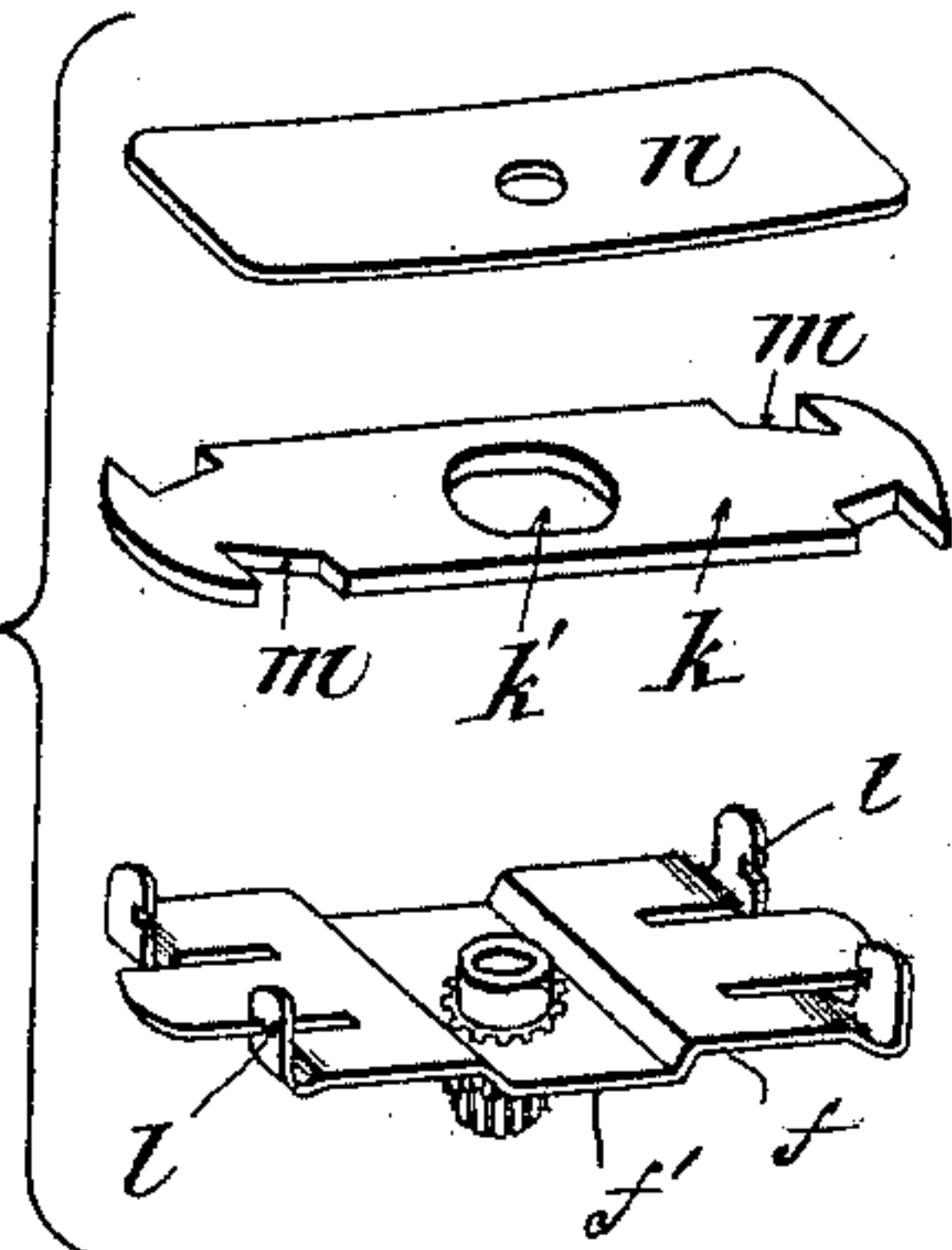
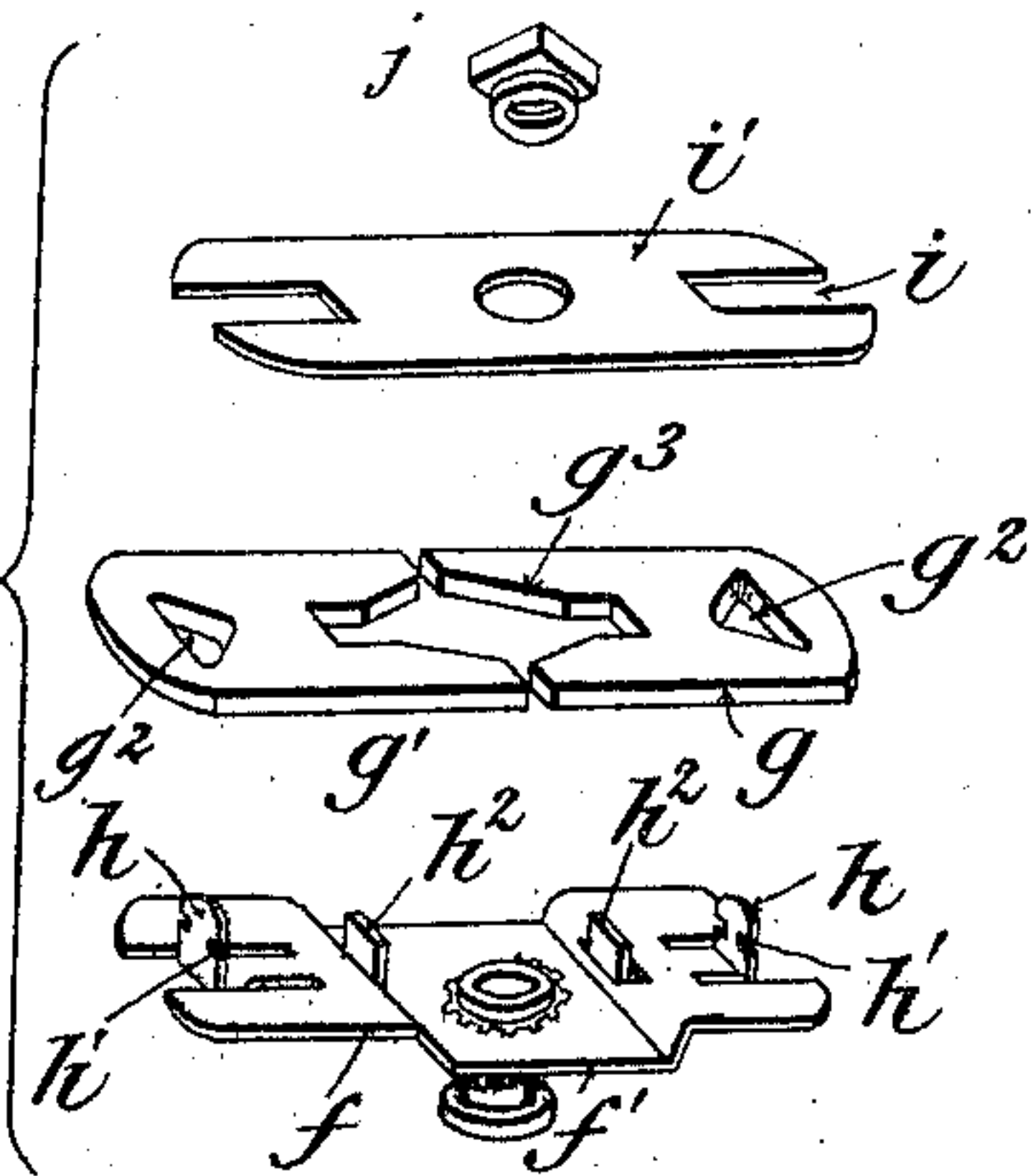


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN H. GOSS AND GEORGE WESLEY EDDY, OF WATERBURY, CONNECTICUT, ASSIGNORS TO THE SCOVILL MANUFACTURING COMPANY, OF SAME PLACE.

BELL-HAMMER.

SPECIFICATION forming part of Letters Patent No. 625,671, dated May 23, 1899.

Application filed November 7, 1898. Serial No. 695,762. (No model.)

To all whom it may concern:

Be it known that we, JOHN H. GOSS and GEORGE WESLEY EDDY, citizens of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented a certain new and useful Improvement in Bell-Hammers, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in that class of bell-hammers which are rotated and frequently repeat the sounding stroke at one impulse of the operating mechanism.

The invention consists of a bell-hammer, the base of which has an integral offset portion in line with its pivotal point or axis of rotation to elevate the striker mechanism above the gearing and prevent the gear and pinion from rising on its stud or post while the bell is being operated, thus insuring constant meshing of the toothed segment on the bell-lever with the pinion, the hub of the pinion having a circumferential groove which coacts with the bell-lever and segment, and the hammer-base having integral lugs rising therefrom and provided with lateral notches to engage a friction-plate applied above the striker or strikers, all as we will proceed now more particularly to set forth and finally claim.

In the accompanying drawings, illustrating our invention, in the several figures of which like parts are similarly designated, Figure 1 is a vertical section of a bicycle-bell. Fig. 2 is a plan view practically in the plane of line 2 2 of Fig. 1. Fig. 3 is a perspective view of one form of hammer. Fig. 4 is a side elevation of the hammer illustrated in Fig. 3. Fig. 5 shows in perspective the parts of the hammer of Fig. 3. Fig. 6 is a perspective view of another form of hammer, and Fig. 7 is a perspective view of the parts of the hammer of Fig. 6.

The bell *a*, its base *b*, post *c*, and bell-lever *d* may be of any usual construction, as also may be the gear and pinion *e* and pinion *e'*.

The bell-lever *d* is supplied with a toothed segment *d'* and an antirattling device *d''*.

The hammer-base *f*, which may be made of comparatively light and, if necessary, springy

metal, has an offset portion *f'*, which takes the place of the washer ordinarily employed on such hammer-bases and is equally efficient with such washer and very much cheaper. To this offset portion the pinion *e'* may be applied, and, as herein shown, this pinion *e'* may have the circumferentially-grooved hub *e''* to cooperate with the antirattling device *d''*.

The hammer-base may be formed in a variety of ways to receive various forms of striker-plates. As shown in Figs. 1, 3, and 5, the striker-plate is made of two parts *g* *g'* of substantially identical formation, each having a triangular eye *g''* and a central Y-shaped notch *g'''*. When such a striker is to be used, the hammer-base is supplied with lugs *h*, having the lateral notches *h'*, the said lugs cooperating with the eyes *g''* to limit the outward throw of the striker-plates and properly return them, and the notches *h'* of said lugs cooperating with the slots *i* in the ends of a friction-plate *i'* to hold the striker-plates to the hammer-base. The hammer-base is also supplied with lugs *h''*, which cooperate with the notches *g'''* to limit the inward throw of the plates and to center them or retain them from lateral displacement by the centrifugal action of the rotating hammer. The notches *g'''* are widened out, substantially as shown, in order also to straddle the post *c* and the hub of the nut *j*, which is applied to said post above the friction-plate in order to hold the hammer to the base independently of the bell proper. If a one-piece striker, such as that shown at *k* in Fig. 7, be employed, then the hammer-base will be supplied with laterally-notched lugs *l* to cooperate with inclined notches *m* in the sides of the ends of the plate *k*, and a flat friction-plate *n*, of springy metal, will be employed to cooperate with the notched lugs *l* in order to secure the striker in position. The central elongated opening *k'* is made in the striker to permit the movement of said striker longitudinally and laterally about the bell-post.

In the form of hammer shown in Figs. 6 and 7 the hammer may be held in engagement with the post *c* by means of an open spring-ring *o*, Fig. 6.

In one example of our invention the post

c may be surrounded by a sleeve *p*, which constitutes a bearing for the hub of the pinion *e*'.

While the offset portion of the base elevates the striker mechanism above the gearing, it subserves the further and important purpose of preventing the gear and pinion *e* from rising on its stud or post while the bell is being operated, and thus insuring the constant meshing of the toothed segment and the pinion.

What we claim is—

1. A bell-hammer, having a base, an attached pinion, and a hub on said pinion provided with the circumferential groove *e*², combined with a train of operating-gears, a bell-lever and an antirattling device pivoted to said bell-lever and cooperating with said grooved hub, substantially as described.

2. A bell-hammer, comprising a base having an integral offset portion, whereby the striker mechanism is elevated above the pinion and gear, to prevent the same from rising on its stud while the bell is being rung and insuring the constant meshing of the op-

erating-gearing, integral lugs rising from the base and having lateral notches, a striker engaging said lugs, and a friction-plate arranged above the striker and in engagement with the notched lugs, substantially as described.

3. A bell, comprising a base, an attached gong, an operating-lever constructed with a toothed segment, a train of gearing operated thereby, and a bell-hammer having a hammer-base constructed with an integral offset central portion, as *f*', to elevate the striker mechanism above the pinion and gear and prevent the same from rising on its stud while the bell is being rung, and insuring constant meshing of the toothed segment and gearing, substantially as described.

In testimony whereof we have hereunto set our hands this 3d day of November, A. D. 1898.

JOHN H. GOSS.

GEORGE WESLEY EDDY.

Witnesses:

C. M. DE MOTT,

J. H. PILLING.