

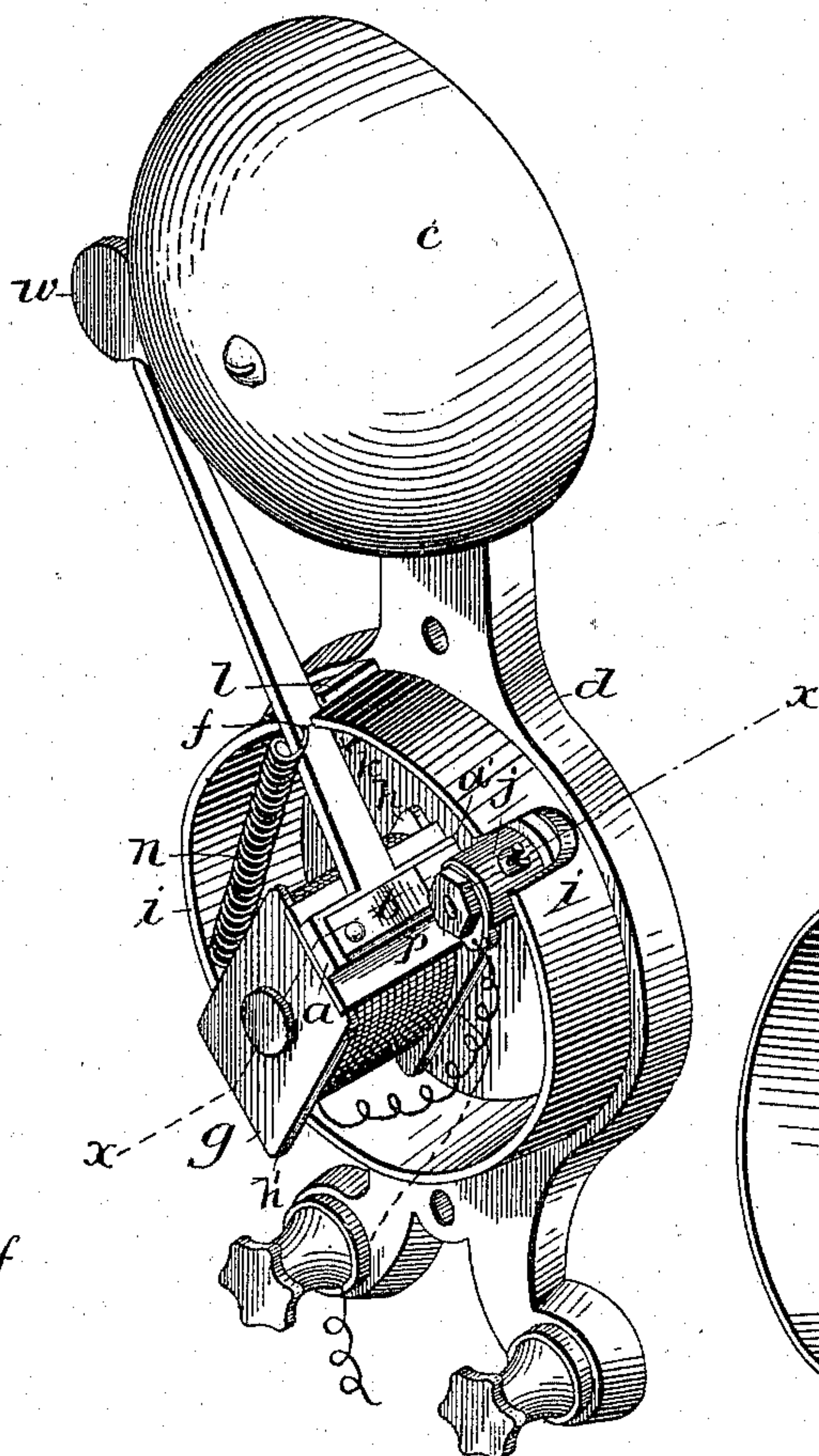
(No Model.)

R. SEGERDAHL.  
ELECTRIC ALARM BELL.

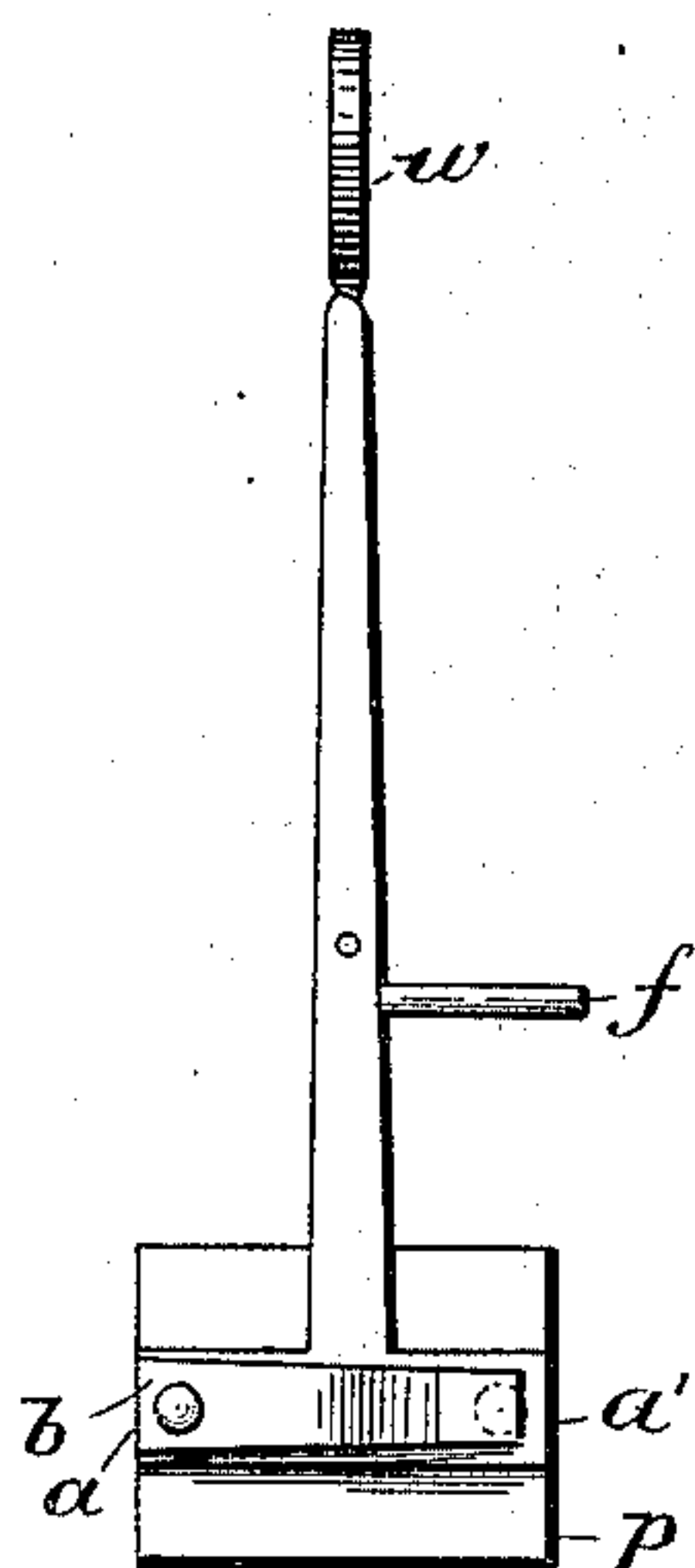
No. 570,508.

Patented Nov. 3, 1896.

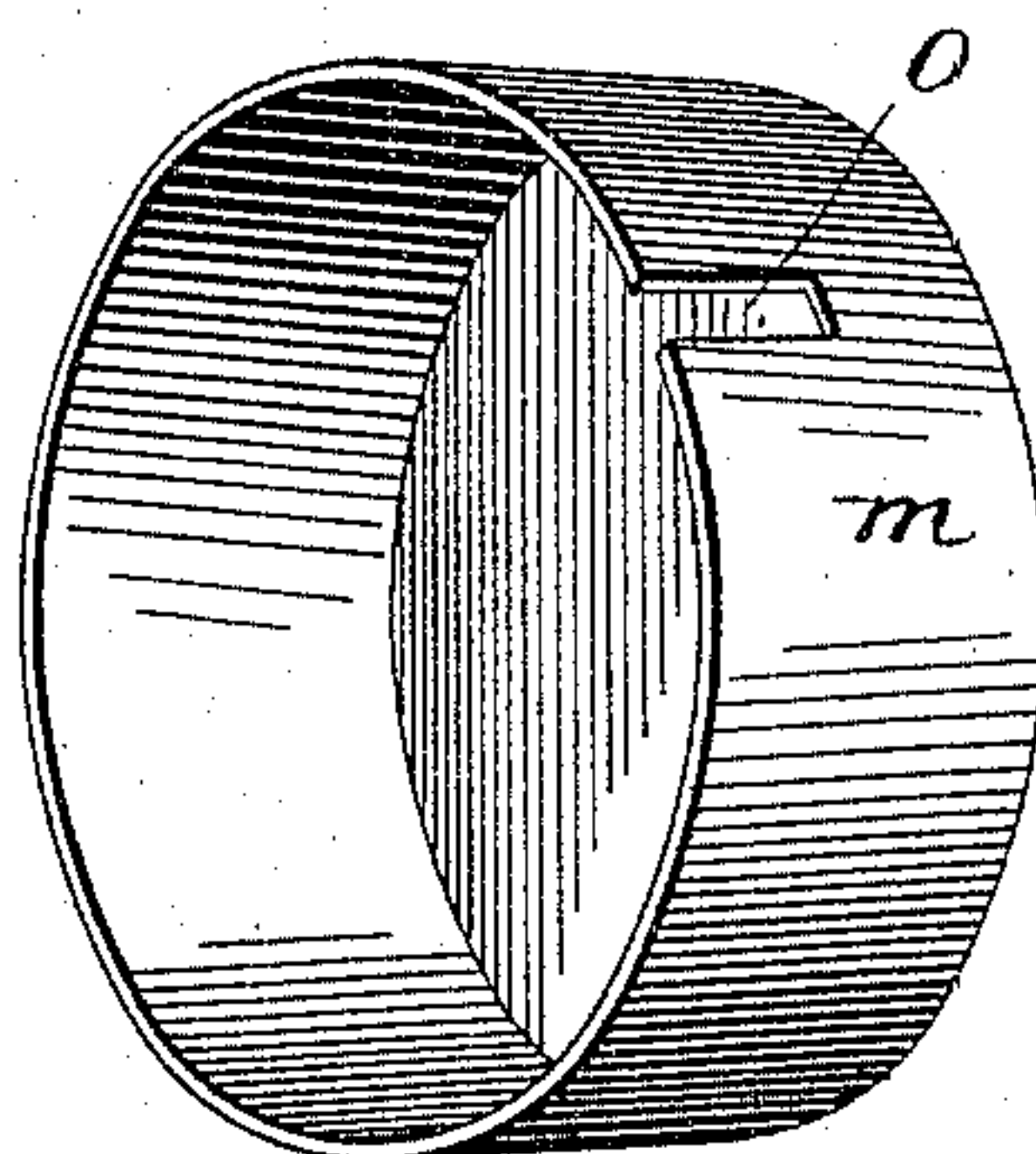
*Fig. 1.*



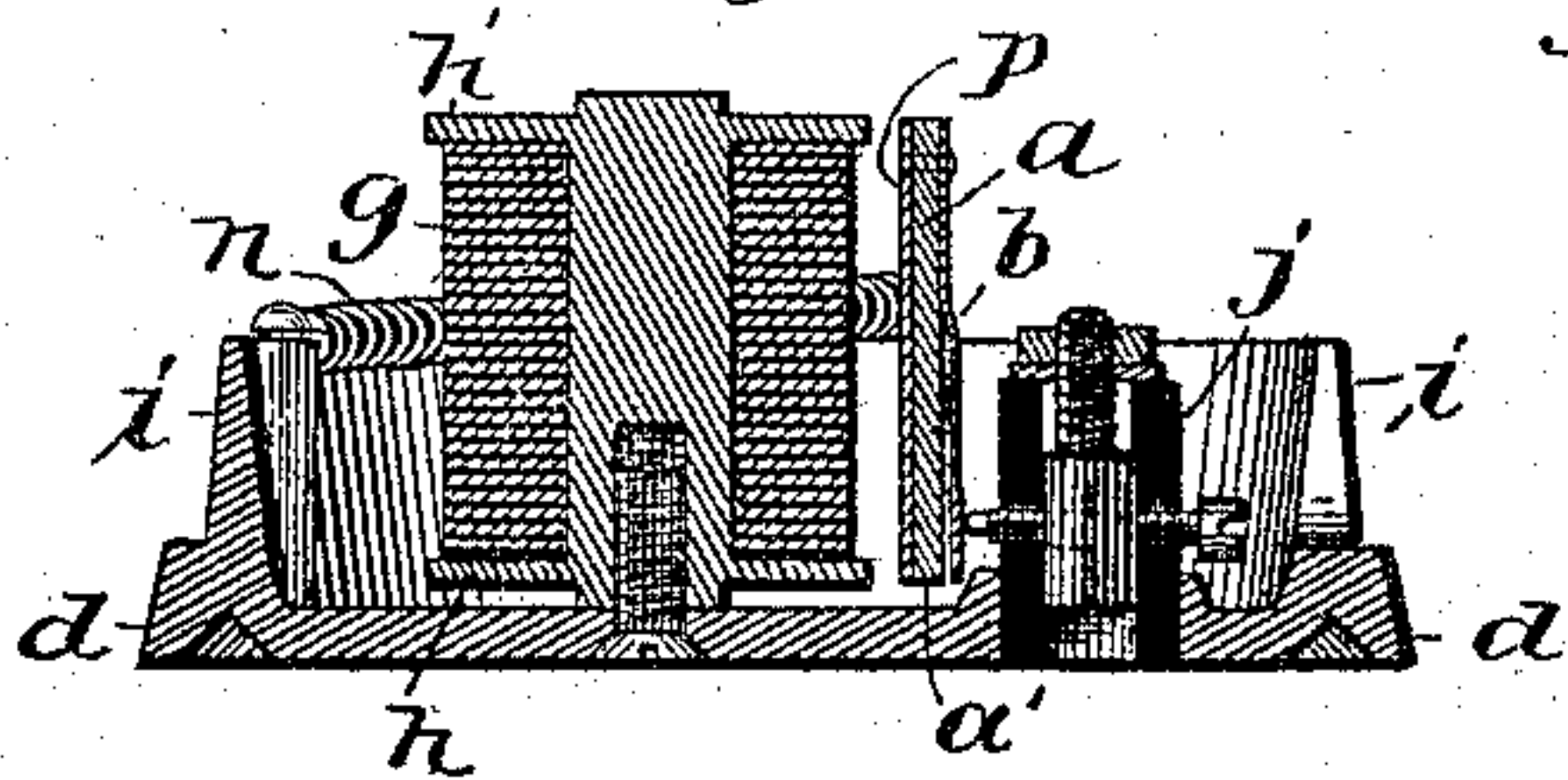
*Fig. 3.*



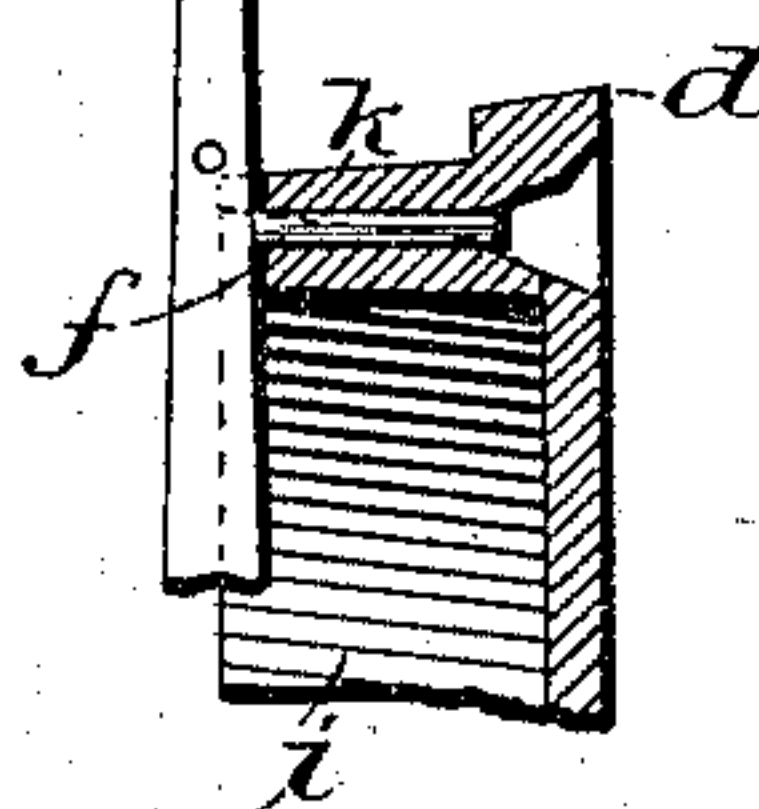
*Fig. 4.*



*Fig. 2.*



*Fig. 5.*



Witnesses:

H. E. Nelson  
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# UNITED STATES PATENT OFFICE.

RUDOLPH SEGERDAHL, OF CHICAGO, ILLINOIS.

## ELECTRIC ALARM-BELL.

SPECIFICATION forming part of Letters Patent No. 570,508, dated November 3, 1896.

Application filed June 27, 1892. Serial No. 438,226. (No model.)

*To all whom it may concern:*

Be it known that I, RUDOLPH SEGERDAHL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Alarm-Bell, of which the following is a specification.

My invention relates particularly to improvements in electric alarm-bells; and the objects of my improvements are, first, to provide means for simplifying the general construction of this class of apparatus; second, to obviate undue action of the striker-lever; third, to reduce to a minimum the liability to derangement of the mechanism from wear, corrosion, dust, and other causes, and, fourth, to secure a compact structure. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective of the entire mechanism as it appears after the removal of the inclosing case; Fig. 2, a horizontal section of the mechanism. Figs. 3 and 4 are detailed views of the striker-lever and the inclosing case, respectively; and Fig. 5 is a sectional view of that portion of the base-plate onto which the striker-lever is journaled.

Similar letters refer to similar parts in the different views.

The frame or base plate *d* (see Fig. 1) constitutes the body of the bell, the rib *i*, secured to the same, being adapted to support the casing *m*, so as to form an inclosure for the mechanism referred to hereinafter. The lug *l*, secured to the rib *i*, is arranged to enter the aperture *O* in the said casing, so as to secure its proper position in reference to the striker-lever which projects through the same.

The striker-lever in my device, speaking generally, consists of a lever of "the first class," and is fulcrumed in close proximity to the rib *i*, so as to permit of the aperture referred to in the said casing being reduced to a minimum. Furthermore, this striker-lever is, as shown in the drawings, fulcrumed to assume a diagonal position in reference to the sounding-piece *c*, which is located at the top of the frame *d*. A compact structure may thus be attained and the different adjustments of the mechanism facilitated. The tension-spring *n* is applied to the said striker-lever in the usual manner and adapted to secure its proper adjustments with reference

to the actuating mechanism provided for the same. However, with the striker-lever in the particular position, as above referred to, it also tends to maintain the same in a certain balance which I have found assures most effective means whereby to prevent undue action of the striker-lever, so as to obviate false signals or jingling when the bell is exposed to a jarring motion.

The particular form of striker-lever I prefer to use in my device is shown in detail in Fig. 3. This lever is preferably formed out of brass, having its upper arm terminating into a disk or striker *w*, and which is preferably, as shown, twisted so as to present its edge to the sounding-piece *c*, the lower arm of the lever being formed with the projections *a a'*, and onto which is secured in a suitable manner the contact-spring *b*, and the armature *p*, which is made of light weight, so as to attain the proper balance of the lever. The pivoted axis *f* is also preferably formed a part of the said lever and is adapted to sustain the position of the same in the stud *k*, this stud being, as shown in Fig. 5, made in the form of a journal-bearing and adapted to be located in very close proximity to the rib *i*. The movement of the striker-lever at this point being thus made very slight, it is readily seen that the aperture required for the same in the casing *m* may be reduced to a minimum, and which assures a practically dust-proof casing for the inclosed portion of the mechanism.

Other advantages will occur to those versed in the art to which my invention pertains. The electromagnet *g* is preferably of the single-coil type and provided with pole extensions *h h'*, which, as shown, are of a design adapted to provide a large attracting-surface for the armature *p* and make the bell sensitive in action. The contact-post *j* is preferably and as shown in the drawings of the construction shown in my Patent No. 540,367, and the same is arranged with reference to the contact-spring secured to the striker-lever in the usual manner.

The circuits and connections of the hereinabove-described device are, as shown in the drawings, the same as in bells of the ordinary construction.

I am aware that prior to my invention



alarm-bells have been made with striker-levers consisting of levers of the first class. I am also aware of the fact that bells have been made dust-proof by means of a certain arrangement of their striker-levers in respect to the casing provided for inclosing their respective mechanisms, and therefore I do not claim the said features broadly; but

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

1. In an electric bell (or signaling device), a striker-lever consisting of a lever of the first class having the weight *w*, the shaft *f*, and the projections *a a'* formed integral, and an armature *p* which is formed separate and secured to the said lever, substantially as and for the purpose described.

2. In an alarm-bell (or signaling device), the combination with a striker-lever consisting of a lever of the first class, of the base-plate *d* having a sounding-piece *c* and a suitable actuating mechanism for the said lever mounted thereon; the fulcrum of the said lever being located to permit the same to as-

sume a position diagonally across the said base-plate, also adapted to permit of a suitable inclosing case for the said actuating mechanism to assume a position in reference to the said striker-lever as described, whereby the aperture required in the said inclosing case to accommodate the action of the said striker-lever may be reduced to a minimum.

3. In an alarm-bell (or signaling device), the combination with its base-plate and an actuating mechanism mounted thereon, of a circular inclosing case for the said actuating mechanism, a striker-lever fulcrumed in close proximity to the aperture in the said inclosing case and arranged to assume a position diagonally across the said base-plate, and means adapted to support the said inclosing case and to retain its proper position in reference to the said striker-lever, substantially as and for the purpose described.

RUDOLPH SEGERDAHL.

In presence of—

J. O. SCHILLESTAD,  
JOHN SHILLESTAD.