

(No Model.)

V. T. LYNCH.  
ALARM GONG.

No. 466,696.

Patented Jan. 5, 1892.

Fig. 3

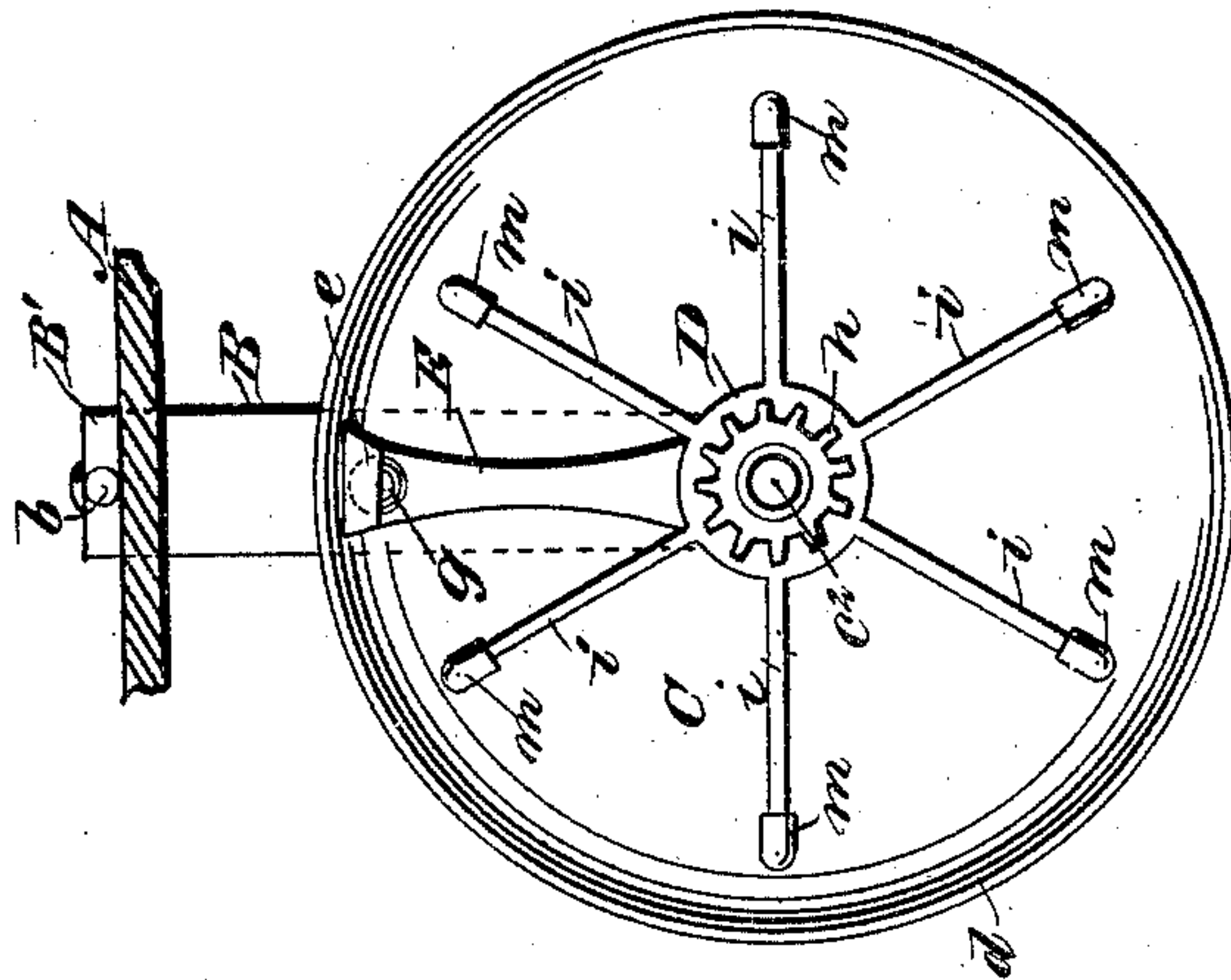


Fig. 2.

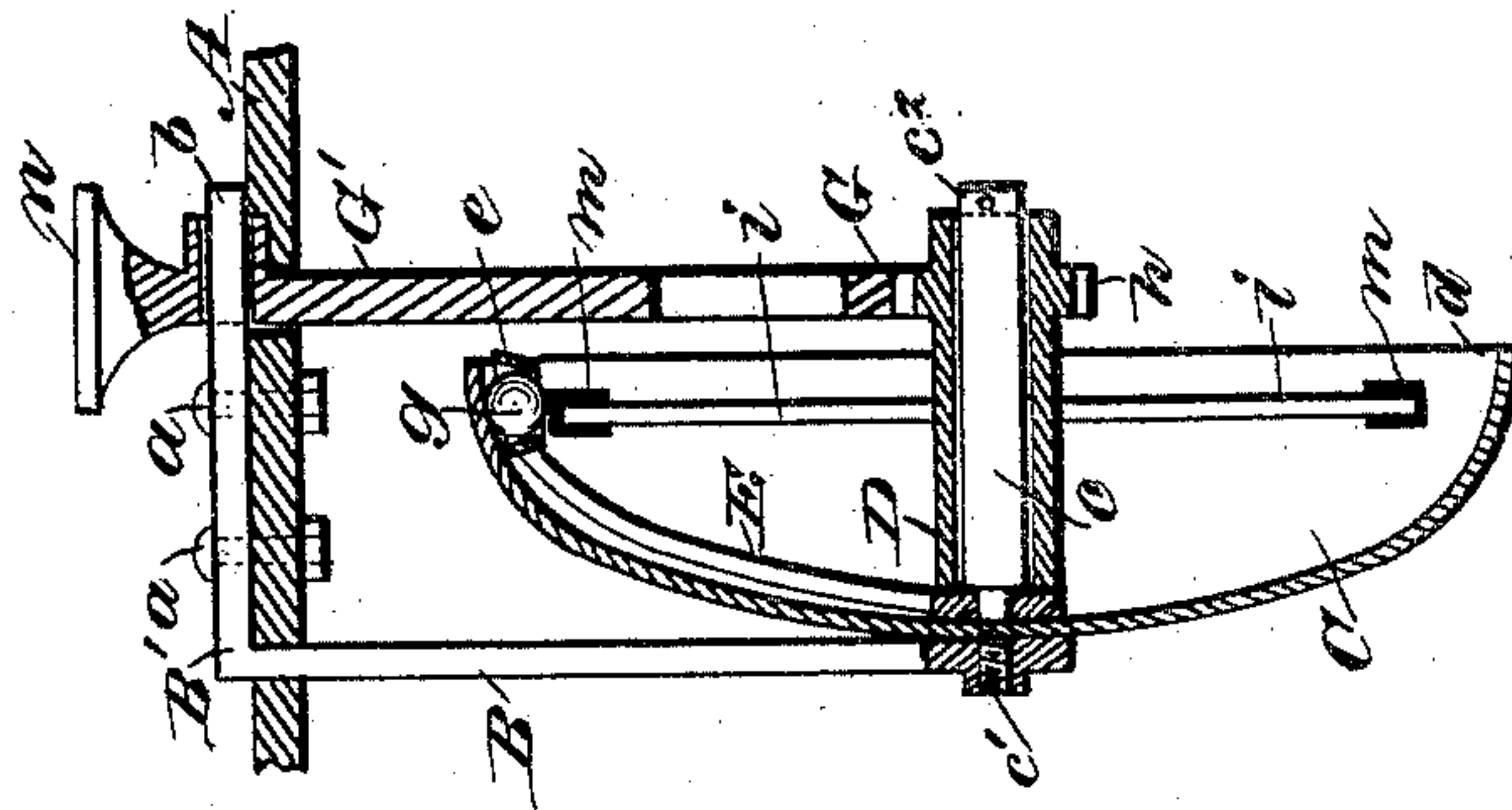
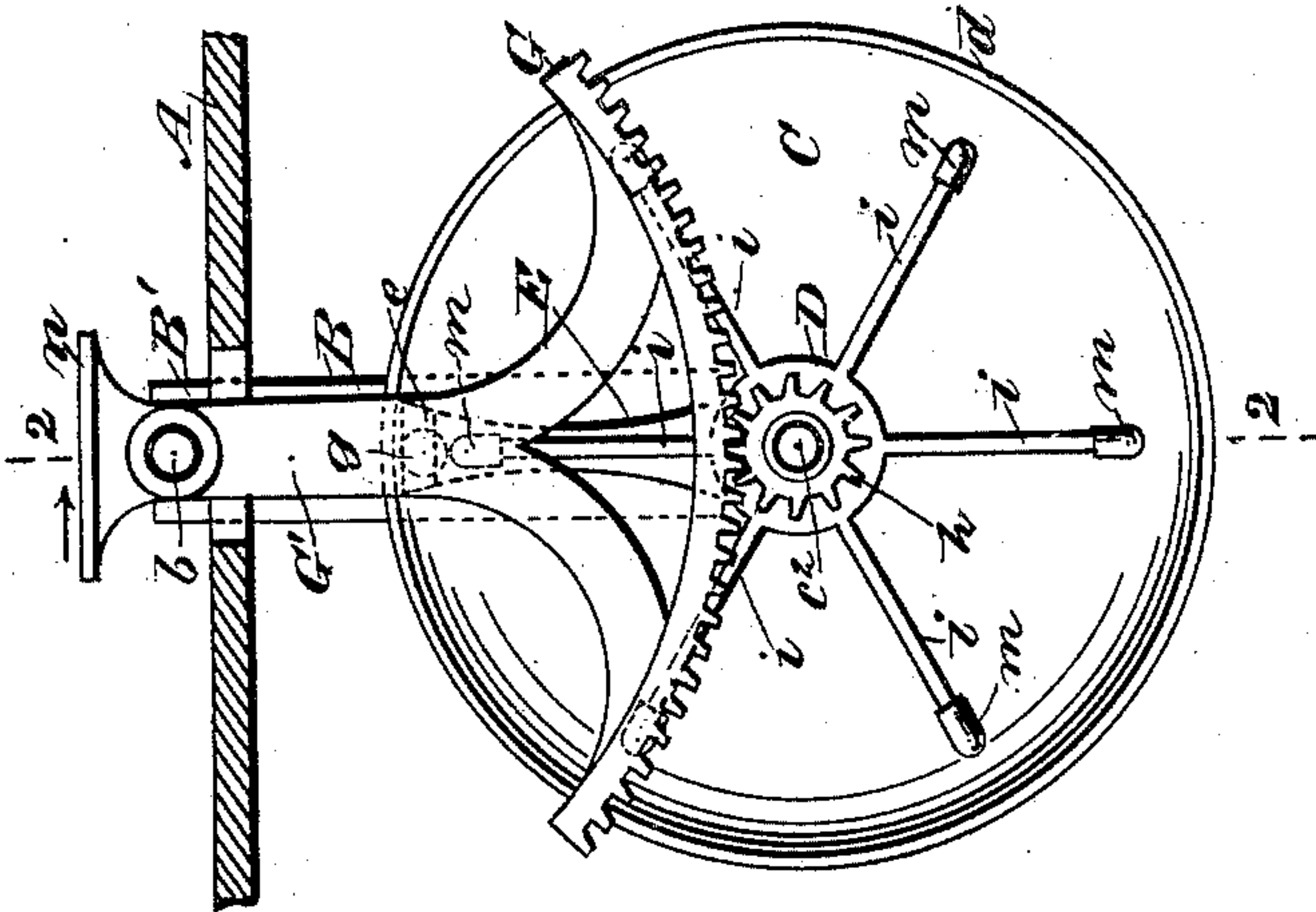


Fig. 1.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

VERNON T. LYNCH, OF CHICAGO, ILLINOIS.

## ALARM-GONG.

SPECIFICATION forming part of Letters Patent No. 466,696, dated January 5, 1892.

Application filed July 15, 1891. Serial No. 399,630. (No model.)

*To all whom it may concern:*

Be it known that I, VERNON T. LYNCH, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Alarm-Gong, of which the following is a full, clear, and exact description.

This invention relates to an improved alarm gong or bell for street-railway cars, and has for its object to provide a simple device of the character indicated, which can be operated by foot-pressure and that will when in service produce a rapid succession of loud and distinct signals.

To this end my invention consists in the construction of parts and their combination, as is hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a portion of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side view of the device in position on a car-bottom. Fig. 2 is a transverse section taken on the line 2 2 in Fig. 1, and Fig. 3 is a view of the same side of the device shown in Fig. 1 with a part of the mechanism removed.

The improved alarm signaling device is available for use on different types of vehicles, but is preferably employed in connection with cable-motor cars, there being one of the improved alarm-gongs suspended below the foot-board or platform at the end of the car.

In the drawings, A represents a portion of the car foot-board at a point near its transverse center, and B a bracket-arm which extends through the foot-board pendent and is secured in place on it by bolts or screws *a*, which are inserted through perforations made to receive them in the floor or foot-board and in a horizontal limb B', that is a portion of the bracket-arm. Upon the free end of the limb B' a journal *b* is formed, and on the lower end of the depending arm B a gong C is secured by a horizontal stud *c*, which projects at a right angle to the portion B and parallel to the limb B'. There is a sleeve D loosely mounted upon the stud *c*, both projecting beyond the free edge *d* of the gong C, and upon a reduced end portion *c'* of the stud, whereon the gong is placed, a laterally-bent standard

E is secured between the shoulder of the stud and the surface of the gong, all being firmly held upon the bracket-arm B by a threaded engagement therewith of the reduced end of the stud, as shown in Fig. 2. The standard E is given a bend which is about equal in curvature with the concavity of the gong C on the inner surface, from which it is slightly removed, and at its free end a short ring *e* is affixed. The ring *e* is of a suitable diameter to receive loosely the spherical ball *g* and has its wall converged toward the lower edge, so as to prevent the ball from dropping through, while a portion of its contour is exposed below the lower edge of the ring, which in function serves as a keeper-box for the ball.

A cross-pin or other equivalent means is provided to prevent the longitudinal displacement of the sleeve D from the stud *c* at its free end *c'*, and upon the sleeve near said end a pinion *h* is formed or secured.

Between the standard E and pinion *h* a series of radial arms *i* are projected from the sleeve D all in the same plane and at such a proportionate distance from the standard as will align them with the ball *g*. The arms *i* are of equal length and are each adapted to strike against the lower part of the ball *g* when the sleeve D is rotated, there being a cap *m*, of leather or gum, placed upon the outer end of each of the arms to avoid jar between the arms and ball when the device is in use.

A preferred means for rotation of the sleeve D consists in the provision of a toothed sector G, formed on a radius-bar G', which latter is located in a slot in the foot-board A and is held suspended by its loose engagement with the journal *b* on the bracket-limb B'. The arc of the sector G is of a proper curvature to adapt its teeth to maintain geared contact with the pinion *h* when the sector is vibrated, and to facilitate such a movement a foot-block *n* is formed on the radius-bar G' above the pivot-journal *b*.

In use the conductor or gripman places one foot upon the block *n* when the gong is to be sounded and rocks it quickly, which will cause the radial arms *i* to strike the ball *g* in rapid succession, throwing it against the rim of the gong at each impact of an arm, the weight of



the ball causing it to instantly drop away, so as to avoid muffling the gong.

Simplicity, durability, and comparatively low cost of production are manifest features of advantage pertaining to the improvement herein shown, its few working parts and positive movement of the same rendering the device reliable and from its form of construction convenient to operate by foot-power, which is desirable, as it permits free use of the hands of the operator for a manipulation of other mechanism, if necessary.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the angle-bracket B, formed with a pivot-post *b* at the end of its horizontal arm and horizontal stud *c* on the lower end of its vertical arm, a bell on the stud adjacent to the bracket, and an arm E, also on the stud within the bell and having an open receptacle in which is placed a ball, of the rotary striker mounted on the stud and having a gear *h*, and a rocking segmental pinion G, meshing with said gear and pivoted upon the bracket-post *b*, substantially as set forth.

2. The combination, with a car-platform having two openings through it, of an alarm

comprising an angle-bracket B, the vertical arm of which extends down through one of said openings and the horizontal arm terminating in a pivot-post *b*, crossing the other opening, a gong and striker mounted on the lower end of the vertical arm, and a segmental gear mounted on said pivot-post *b*, geared to the striker below the platform and having a foot-piece *n* above the platform, substantially as set forth.

3. In an alarm signaling device, the combination, with a suspended gong, a bent standard held near the gong, and a ball loosely sustained on the free end of the standard near the edge of the gong, of a sector on the end of a pivoted radius-bar, a foot-piece on said radius-bar, a rotatable sleeve held in place by a stud projected from the support of the gong, a series of radial arms on the sleeve that successively strike the ball when the sleeve is rotated, and slightly-elastic caps on the free ends of the radial arms, substantially as described.

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Witnesses:

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