HENRY A. DIERKES.

Improvement in Call Bells.

No. 125,029. Patented March 26, 1872.

FIG. I.

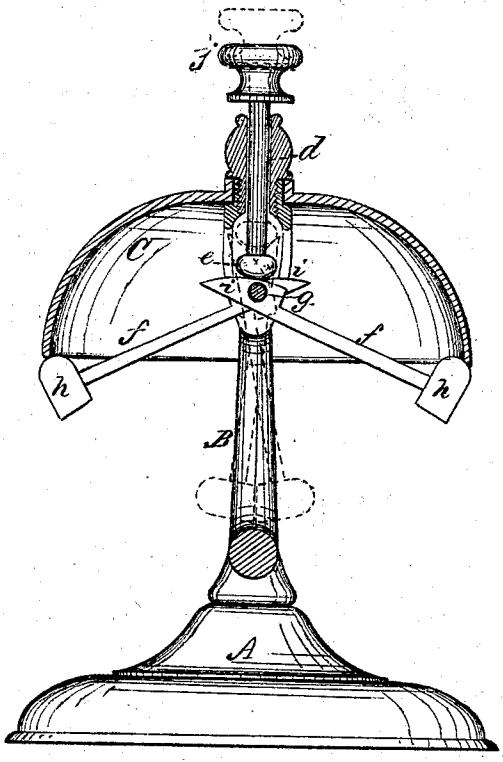


FIG. II.

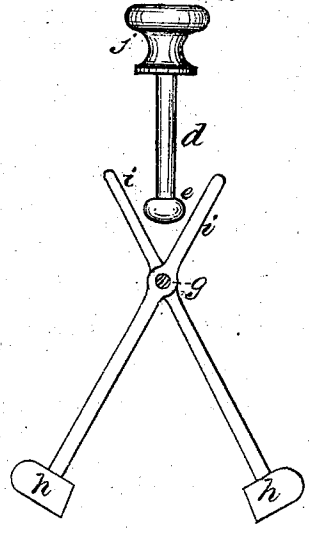
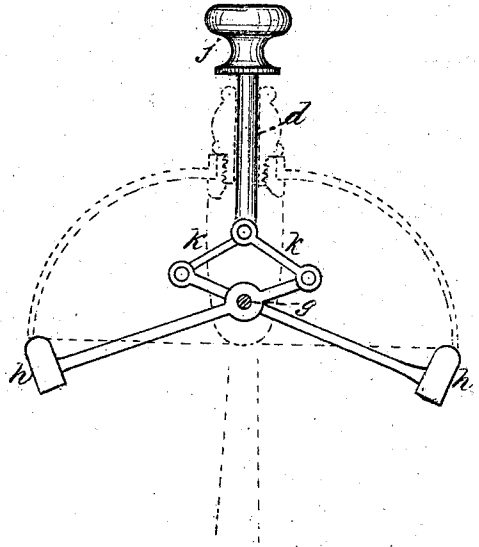


FIG. III.



WITNESSES.

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UNITED STATES PATENT OFFICE.

HENRY A. DIERKES, OF NEW YORK, N. Y.

IMPROVEMENT IN CALL-BELLS.

Specification forming part of Letters Patent No. 125,029, dated March 26, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, HENRY A. DIERKES, of the city, county, and State of New York, have invented an Improvement in Call-Bells, which I denominate the Duplex Striking-Bell, of which the following is a description:

My invention has for its object to produce a call-bell of simple construction, reliable in its operation, and of improved tone; and it consists in the employment of duplex arms journaled to the standard on one axis, in such relation to a vertical pressure-rod that, when passive, said rod is sustained by and between the two extremities or heads of the arms above their axis; and, when sufficient force is employed to depress the rod, such action causes the hammers to rise and simultaneously strike the gong, as hereinafter described.

Figure 1 is an elevation of my improved call-bell, the gong being represented in vertical section to show the striking mechanism. Fig. 2 is a detached view of the pressure-rod and duplex hammers with a modified form of arms. Fig. 3 is a modification of my device, showing the duplex arms pivoted to the pressure-rod.

As represented in the drawing, A is the base; B, the standard; and C, the gong. The standard is preferably made bifurcated within and below the gong to admit of hanging the hammer-arms centrally, and its top portion is hollow, to form a receptacle for the pressure-rod *d*, which moves freely within it, and is provided with a button or knob, *j*, at its upper extremity, while its lower end terminates, by preference, in an enlargement, *e*, which serves to prevent its withdrawal from the standard, and presents a larger surface to act upon the hammer-arms *f f*. These are journaled side by side, crossing each other, on a pin or other axis, *g*, which has its bearings in the standard B, directly below and in vertical line with the pressure-rod. The hammers *h h* are affixed to the lower extremities of the arms *f f*, and, when at rest, hang in nearly a vertical position, as represented by dotted lines in Fig. 1, their arms necessarily converging to receive the same axis, and their upper extremities *i i* forming an acute angle with relation to each other, and giving support to the pressure-rod.

Force suddenly imparted to the pressure-rod causes it to traverse down the incline of the heads or ends *i i*, expanding the wedge-shaped opening between them, and swinging the hammers simultaneously outward in an arc till they strike the gong. As soon as pressure is withdrawn from the knob *j* the presser-rod is raised by the return of the hammers to their former position. The inclination of the heads *i i* may be increased by forming them beveled, as in Fig. 1, to a greater or less extent, as desired. The duplex hammers, by striking the gong together, produce a fuller and rounder note than that made by a single blow, the effect of the force of two blows acting in opposite directions so modifying the vibrations that they unite and produce a harmonious sound of improved tone, while the same cause acts mechanically to preserve the equilibrium of the gong on its bearing by preventing disadjustment and unequal wear.

Fig. 3 represents an equivalent arrangement, in which the heads of the two-hammer-arms are pivoted to the pressure-rod by means of connecting-rods *k k*. This modification of the construction produces no difference in the result or principle of operation.

The hammer-arms may be fitted on their axis by slotting one and passing the other through it, or the two may have plane surfaces working side by side.

I claim as my invention—

As an improved call-bell, the employment of the duplex hammer-rods *f f*, in combination with the pressure-rod *d*, standard B, and gong C, arranged and operating substantially as shown and described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

HENRY A. DIERKES.

Witnesses:
J. FRASER,
GEO. W. MIATT.