(No Model.)

R. P. GARSED.

PNEUMATIC BELL RINGING APPARATUS.

No. 264,273. Patented Sept. 12, 1882.

Fig. 1.

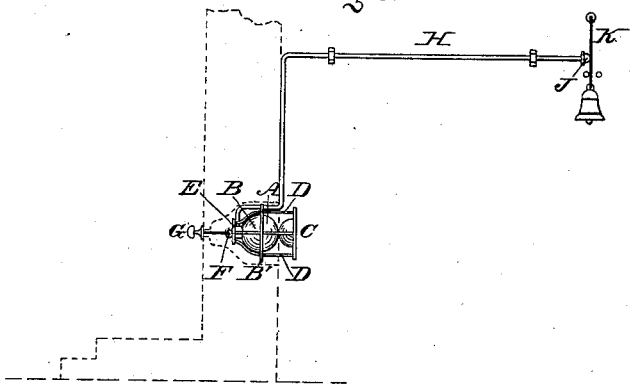


Fig. 2.

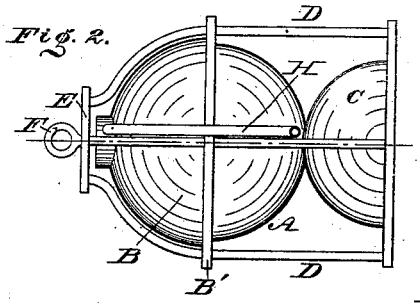


Fig. 3.

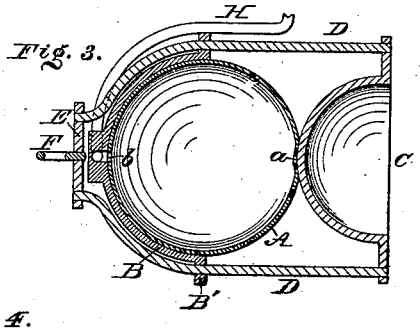
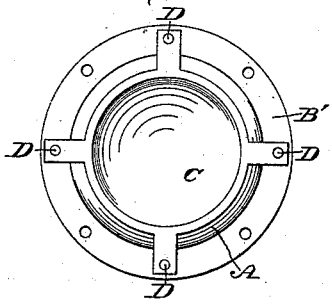


Fig. 4.



WITNESSES:
L. Douville
W. P. Kircher

INVENTOR:
R. P. Garsed.
BY John A. Diedersheim
ATTORNEY.

UNITED STATES PATENT OFFICE.

ROBERT P. GARSED, OF NORRISTOWN, PENNSYLVANIA.

PNEUMATIC BELL-RINGING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 264,273, dated September 12, 1882.

Application filed October 11, 1881. (No model.)

To all whom it may concern:

Be it known that I, ROBERT P. GARSED, a citizen of the United States, residing at Norristown, in the county of Montgomery, State of Pennsylvania, have invented a new and useful Improvement in Pneumatic Bell-Ringing Apparatus, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation of the bell-ringing apparatus embodying my invention. Fig. 2 is a side elevation of a portion thereof, enlarged. Fig. 3 is a longitudinal section of Fig. 2. Fig. 4 is an end view of Fig. 2.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a pneumatic bell-ringing apparatus of simple and inexpensive construction, as will be hereinafter fully set forth.

Referring to the drawings, A represents a hollow sphere or ball of rubber or other suitable elastic material, which is fitted to a hemispherical shell or holder, B, the latter being adapted to be secured to the frame of a door or other proper support.

C represents a plunger of rigid material, which is connected to sliding rods or bars D, which are passed through openings in the flange or rim B′ of the holder B, said rods retaining the plunger in position and guiding it in its motions. The ends of the rods D, opposite to the plunger C, are secured to a plate, E, which is provided with an eye, F, for attachment of the bell-pull G, whereby when the latter is operated the plunger is forced against the ball A.

In the ball are openings *a b*, the opening *a* being adjacent to the plunger C, and the opening *b* communicating with a pipe, H, which is secured to the holder B and opens into the ball, said pipe being secured in position to the wall and ceiling or other proper support.

To the end of the pipe opposite to the place of connection with the holder B is secured an elastic head, J, of rubber or other suitable material, which is adapted to come in contact with the spring arm or rod K of a bell suitably hung.

When the parts are in their normal position the opening *a* of the ball is sufficiently uncovered to permit the entrance of air into the ball and inflate the same.

When it is desired to ring the bell the pull G is operated as usual. This compresses the ball and forces the air therein through the pipe H against the head J, which, expanding or being forced out against the arm K, moves the latter, thus ringing the bell. When the pull is let go the ball is permitted to expand, and the plunger and pull are thereby returned to their normal positions, the ball then being replenished with air through the opening *a*. The air in the pipe H returns to the ball, whereby the head J contracts or assumes its normal shape, and the bell-arm is again moved, thus further ringing the bell. The return of the head J may, however, be assisted by a spring suitably applied or occasioned by gravity, and in the return motion strike a pin attached to the arm K.

It will be seen that I produce a pneumatic bell-pull which is inexpensive, simple of construction, compact, and easily applied and operated.

If desired, a whistle may be substituted for the head J as a signal in lieu of the bell.

The head J may be formed of rubber faced with metal, in order to guard said head from the wearing action of the bell-rod.

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

1. The concave holder B, provided with guide-flange B′ and a port, in combination with pipe H, communicating with said port, compressible sphere A, communicating with said port and pipe, plunger C, bearing against the other side of said sphere, arms D, connected to said plunger and passing through said guide-flange, and a bell-pull which operates said guide, substantially as set forth.

2. The hollow sphere, inclosed in the holder, in combination with the plunger connected to rods which are guided by the holder and provided with means of attachment to the bell-pull, substantially as and for the purpose set forth.

R. P. GARSED.

Witnesses:
ALEXANDER RICKEY,
W. L. OSBOURN.