

(No Model.)

S. GOULDEN.
ROTARY BELL HAMMER.

No. 507,805.

Patented Oct. 31, 1893.

Fig. 1.

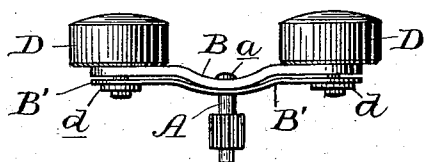


Fig. 2.

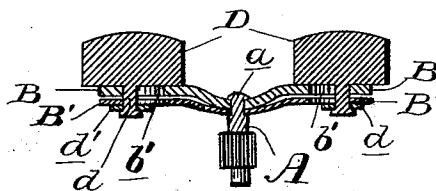


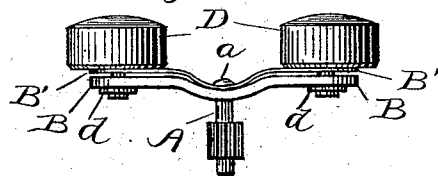
Fig. 3.



Fig. 4.



Fig. 5.



Witnesses
Thos. E. Robertson,
M. E. Clendaniel

Inventor
Samuel Goulden
By T. J. W. Robertson
Attorney

UNITED STATES PATENT OFFICE.

SAMUEL GOULDEN, OF NEWARK, NEW JERSEY, ASSIGNOR TO THE
HARDWARE SPECIALTY COMPANY, OF SAME PLACE.

ROTARY BELL-HAMMER.

SPECIFICATION forming part of Letters Patent No. 507,805, dated October 31, 1893.

Application filed June 19, 1893. Serial No. 478,108. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL GOULDEN, a subject of the Queen of Great Britain, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Rotary Bell-Hammers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to an improvement in the rotary bell-hammers used in that style of bells shown in my application filed February 2, 1893, Serial No. 460,728, which application was allowed May 19, 1893; and the invention consists in the peculiar construction, arrangement and combinations of parts hereinafter more particularly described and then definitely claimed.

In the accompanying drawings which fully show my invention, Figure 1 is a side elevation of the hammers and their shaft provided with my improvement. Fig. 2 is a vertical central section of the same. Fig. 3 is a side view of the spring hammer-arms. Fig. 4 is a plan of the same; and Fig. 5 is a side elevation of a modification.

Referring now to the details of the drawings by letters, A represents the hammer-spindle, which is geared to the operating mechanism in the usual way, but as said operating mechanism is old, there is no necessity of showing or describing it in this application.

B indicates the hammer-arms, and B' a spring-plate, or spring hammer-arms as they will be hereinafter called, which are placed under the hammer-arms B, and both are riveted or screwed to the hammer-arm spindle A, as shown at *a*. The spring hammer-arms are, as their name implies, made of spring material, and each arm thereof is bent slightly downward (as shown best in Fig. 3) and has a slot therein as shown at *b'*.

The hammers D are provided with shanks *d* which enter these slots and are adapted to work in and out therein when in operation, and said shanks are riveted, after they pass through said hammer-arms, to burrs *d'* in such a manner that both the hammer-arms are pressed between the hammers and burrs, as shown in the drawings.

The operation of this device will be readily understood by those familiar with this class of bells, and may be briefly stated as follows: When the hammers revolve, they are thrown outwardly to the end of the slots in the hammer-arms by centrifugal force, and when said hammers strike the gong, they rebound or are pushed back toward the other end of the slots, and are again thrown out as they revolve.

In Figs. 1 and 2, I have shown the spring hammer-arms underneath the main hammer-arms, but it is obvious that they may be placed above the latter as shown in Fig. 5, and I therefore do not intend to limit my invention to either form.

This improvement is specially designed to be used on bicycle bells, where the spring-hammer-arms prevent the hammers from rattling, and of course I wish it to be distinctly understood that I do not limit the following claims thereto, but intend to cover them in any bell on which it is used.

What I claim as new is—

1. The combination with the revolving spindle of a bell, of hammer and spring arms secured to said spindle substantially parallel with each other, and hammers slidingly secured to said arms, substantially as described.

2. The combination with the revolving spindle of a bell, of hammer and spring arms secured thereto, a slot in each of said arms, said slots being coincident with each other, and a hammer having its shank passing through said coincident slots, substantially as described.

3. The combination with the revolving spindle of a bell, of a slotted hammer arm secured thereto, a hammer having its shank passing through said hammer arm, a burr riveted to the end of said shank, and a spring-arm placed between said hammer-arm and burr, substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses, this 16th day of June, 1893.

SAMUEL GOULDEN.

Witnesses:

JAMES L. SMITH,
HENRY HAHN.