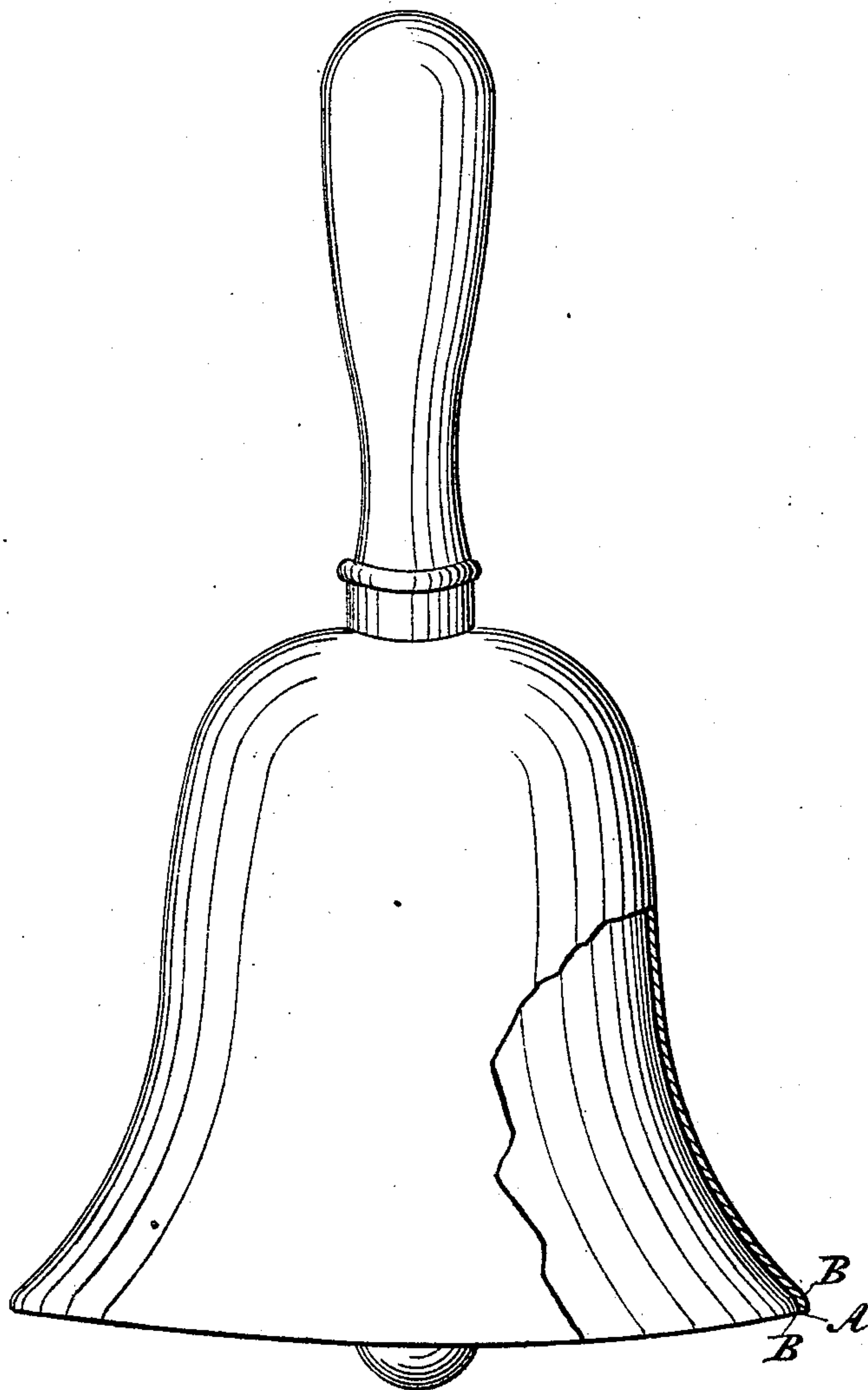


(No Model.)

D. TORREY.  
Bell.

No. 236,652.

Patented Jan. 11, 1881.



WITNESSES:

*A. Schehl.*  
*C. Sedgwick*

INVENTOR:

*D. Torrey*  
BY *Munn & Co*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

DOLPHUS TORREY, OF NEW YORK, N. Y.

## BELL.

SPECIFICATION forming part of Letters Patent No. 236,652, dated January 11, 1881.

Application filed November 24, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, DOLPHUS TORREY, of the city, county, and State of New York, have invented a new and Improved Bell, of which  
5 the following is a specification.

The object of this invention is to provide a bell of superior lightness, strength, and durability, and of novel construction and material.

10 The invention consists of a bell swaged from a plate of composite metal, which has a steel center and iron surfaces.

The drawing represents an elevation of the bell with a part broken away to exhibit the  
15 character of the plate of which it is formed.

It is well known that in the manufacture of cast-metal bells great weight of metal is required to give the bell sufficient strength to endure continued use, and, notwithstanding  
20 their weight and thickness of metal, cast bells frequently fracture or crack from use. These objections are avoided in the construction of the bell herein shown and described, said bell being swaged from a composite plate, which  
25 plate may be made by inclosing steel in a box-pile having iron top and bottom plates and sides made by bending a narrow plate of iron so that its ends shall overlap each other, and, further, by treating the pile so made by prop-

erly heating it in a furnace and then subject- 30  
ing it to the hammer and rolls, as is commonly done in the manufacture of iron plate, and thereby producing a plate having a steel center and iron surfaces thoroughly welded together—a plate harder, stronger, and more 35  
sonorous than an iron plate, and a plate of great durability and better welding qualities than a steel plate, and consequently far better adapted to the manufacture of a bell, and better adapted also because of the fibrous iron 40  
surfaces which secure the bell from fracture by the impact of the tongue or hammer or by vibratory strain.

In the drawing, A represents the steel center of the plate of which the bell is formed, 45  
and B B represent the iron surfaces of said plate or bell.

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

A bell consisting of the steel plate A between two iron surfaces, B B, as shown and described. 50

DOLPHUS TORREY.

Witnesses:

I. I. STORER,  
C. SEDGWICK.