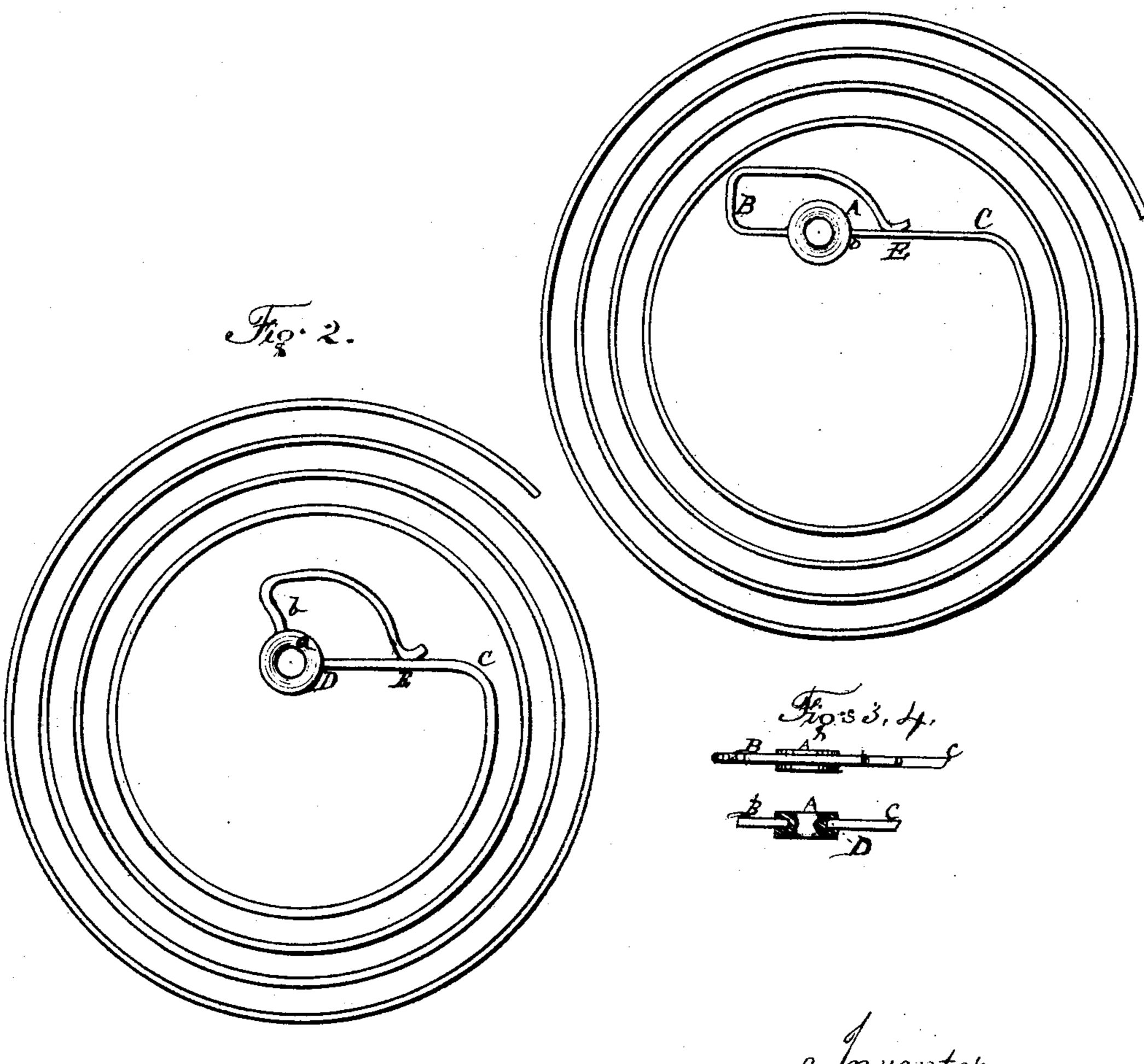
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Fig-1.



Witnesses. Amstelams Justinellier Inventor. I. lo. British By Melile, Grant Tho.

## Anited States Patent Office.

## LEONARD C. BUTCH, OF LANCASTER, OHIO.

Letter's Patent No. 103,559, dated May 31, 1870.

## IMPROVEMENT IN BELLS FOR CLOCKS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, Leonard C. Butch, of Lancaster, in the county of Fairfield and State of Ohio, have invented a new and useful Improvement in Clock Bells, of which the following is a full and exact description, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 represents the clock-bell with long stay.

Figure 2, clock-bell with short stay. Figure 3, top view of the escutcheon.

Figure 4, section through escutcheon, showing the attachment of stay.

In all the figures the same letters refer to similar parts.

A is the escutcheon, with long stay.

a, the escutcheon with short stay.

C, the clock-bell. D, foot of bell.

E, point of percussion.

The nature of my invention consists in providing a stay to the foot of clock-bells so as to increase their strength and improve the clearness and solidity of their tone.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I extend the foot of the bell and bend it around

in a loop or semicircle to the point of percussion E, to which I attach it by silver or other hard solder, thus forming a brace or anvil to sustain the foot D, and causing the strain arising from the stroke of the hammer of the bell to be equally transmitted over the escutcheon, thus improving the clearness and solidity of the tone of the bell, and obviating its liability to be broken off at its foot.

The foot D is joined to a round brass bearing, as

herein shown, by means of hard solder.

In a clock where the striking is required to be rapid and hard, the stay should be made shorter, as shown

in fig. 2.

Having thus fully described the construction and

Having thus fully described the construction and operation of my invention,

What I claim, and desire to secure by Letters Patent, is—

A stay attached to the foot of a clock-bell, back of the point of percussion, as herein shown, and for the purpose described.

In testimony that I claim the foregoing improvement in clock-bells, I have hereunto set my hand this 19th day of January, 1870.

L. C. BUTCH.

Witnesses:

K. FRITTER, DANIEL CONNELEY.