

(No Model.)

N. MAGEE.
BELL CRANK.

No. 345,438.

Patented July 13, 1886.

Fig. 1.

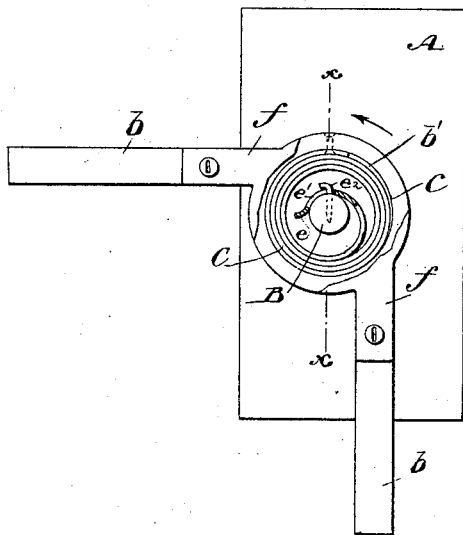


Fig. 2.

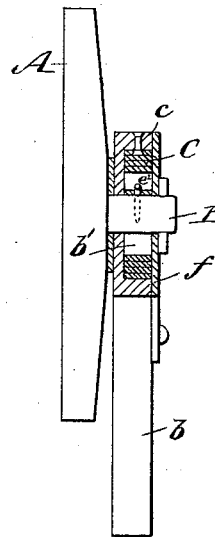
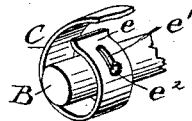


Fig. 3.



WITNESSES:

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NELSON MAGEE, OF HOBOKEN, NEW JERSEY.

BELL-CRANK.

SPECIFICATION forming part of Letters Patent No. 345,438, dated July 13, 1886.

Application filed May 20, 1886. Serial No. 202,824. (No model.)

To all whom it may concern:

Be it known that I, NELSON MAGEE, of Hoboken, in the county of Hudson and State of New Jersey, have invented a new and Improved Bell-Crank, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a broken front elevation of my new and improved bell-crank. Fig. 2 is a sectional elevation of the same, taken on the line *xx* of Fig. 1; and Fig. 3 is a detailed view showing the connection of the spring to the gudgeon.

The invention will first be described in connection with the drawings, and then pointed out in the claims.

A represents a base, preferably of metal, formed or provided with the gudgeon B. Upon this gudgeon is keyed or otherwise secured the bell-crank C, formed with the arms *b b*, and with the box *b'*, covered with the plate *f*. In the box *b'* is placed the coiled spring C, one end of which is secured to the inner surface of the rim *e*, while the other end is attached to the gudgeon B, so that by turning the bell-crank upon the gudgeon the spring may be wound up to exert more or less tension, according to the number of revolutions given to the bell-crank. The inner end of the spring C is slightly curved to form the cam *e*, and the spring is slotted at *e'* near the cam *e*, to connect with the hook *e'* in the gudgeon. The hook *e'* is slightly curved or rounded, as shown in Figs. 1 and 3, so that when the bell-

crank is turned upon the gudgeon in the direction of the arrow in Fig. 1 the spring will detach itself from the hook and ride over or pass the same, so that no harm will be done the spring by thus turning the bell-crank in the wrong direction. By turning the bell-crank in the right direction—the direction opposite to that indicated by the arrow—the spring will automatically engage with the hook *e'*.

By constructing the bell-crank in the manner described the strength of the spring action may be easily adjusted and increased or diminished, as circumstances require, and, owing to the ready detachment of the spring from the gudgeon when the crank is turned in the wrong direction, there is no danger of injuring the spring. Besides the bell-crank as a whole is cheap, practical, and durable.

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

1. A bell-crank formed with a chamber and placed upon a gudgeon, in combination with a coiled spring attached at one end to the gudgeon and at the other to the bell-crank, substantially as described.

2. The gudgeon B, provided with the curved hook *e'*, in combination with the bell-crank B and spring C, the bell-crank being formed with a chamber to receive the spring, and the inner end of the spring being formed with cam *e* and slot *e'*, substantially as described.

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Witnesses:

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