M. F. WESSMANN.

Mechanical Telegraph-Sounder.

No. 160,374. Patented March 2, 1875.

Fig. 1.

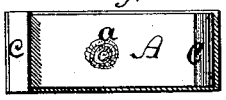


Fig. 2.

Fig. 3.

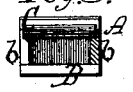


Fig. 4.

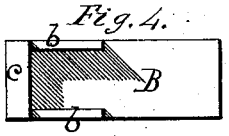


Fig. 5.

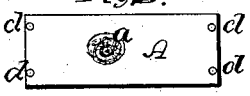
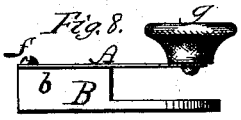


Fig. 6.

Fig. 7.

Fig. 8.



Witnesses,
C. Clarence Poole
R. D. C. Smith

Inventor,
Martin F. Wessmann,
By his atty.
J. S. Brown.

UNITED STATES PATENT OFFICE.

MARTIN F. WESSMANN, OF CHERRY HILL, NEW JERSEY.

IMPROVEMENT IN MECHANICAL TELEGRAPH-SOUNDERS.

Specification forming part of Letters Patent No. **160,374**, dated March 2, 1875; application filed May 19, 1874.

To all whom it may concern:

Be it known that I, MARTIN F. WESSMANN, of Cherry Hill, in the county of Bergen and State of New Jersey, have invented a new and Improved Mechanical Sounder, intended especially for teaching the use of the Morse telegraph-alphabet; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification—

Figure 1 being a top view of the sounder; Fig. 2, a side view of the same; Fig. 3, an end view of the same; Fig. 4, a top view of the base of the sounder; Fig. 5, a top view of the thin elastic strip of metal which forms the sounder proper; Fig. 6, an end view of the finger-guard attached to the end of the elastic strip; Fig. 7, a top view of a modified construction of the sounder; Fig. 8, a side view of the same.

Like letters designate corresponding parts in all of the figures.

The sounder proper is a thin strip or ribbon, A, of steel or equivalent elastic metal or material, having a slight indentation, *a*, near the middle of the same, so that by alternately bending or curving and straightening the same, a snapping sound is produced by the reversing, or partial reversing, of the indentation.

The principal feature of my invention consists in combining, with the said elastic indented strip, a base, B, to which strip is attached at one end only, while the other end is left free to move and be alternately bent and straightened, as seen by full and dotted lines in Fig. 2, to produce the snapping sound fully and easily. The strip rests at its attached end upon a fulcrum or supports, *b b*, of the base, extending to about the middle of the strip, or about to a line running transversely across the center of the indentation *a* thereof, and the remaining length of the strip is free to be bent down over the base and to return to its unbent position alternately for producing the sounds. The fulcrum-projections *b b* are placed at the edges of the base, not only to allow the indented strip freedom to act, but to inclose to that extent a space under the sounder-strip, while the attaching-projection *c* incloses that end of the space, by which construction a much fuller and louder sound is produced by the sounder-strip.

In order to round off the free end of the strip A and give a proper hold thereon for the fingers, as well as a guard, I incase the end in a rounded piece, C, applied substantially as shown.

If the sound-strip is used without a base, as it sometimes may be, a guard is put on each end of the sounder.

I employ a simple, cheap, rapid, and withal effective, means of attaching the sounder-strip to its base B, or to the finger-guard C. It consists in punching holes *d d*, Fig. 5, in the strip near the ends thereof; then, after inserting the ends of the strip in slits sawed or cut in the base and finger-guard, as indicated in Fig. 6, made to receive the same, the metal of the base and finger-guard is forced into the said holes by light blows of a hammer upon the base and finger-guard over the holes, thus upsetting the metal and effecting the purpose.

In the modification shown in Figs. 7 and 8, another mode of attaching the sounder-strip to the base, by ordinary screws *f f*, is employed. This answers for cases where it may be required or desirable to remove the sounder-strip and exchange or replace.

In Figs. 7 and 8, also, is shown an ordinary telegraph-button, *g*, attached to the sounder-strip, instead of the finger-guard C; but this is better, and is more costly than the finger-guard above described.

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

1. A mechanical sounder, composed of an indented elastic metallic strip, A, and a base, B, the strip being attached to the base at one end, while the other end is free to move, substantially as and for the purpose herein specified.

2. The sounder-base B, having inclosing sides *b b*, or their equivalent, substantially as and for the purpose herein specified.

3. The finger-guard C on the end of the metallic sounder-strip A, substantially as and for the purpose herein specified.

Specification signed by me this 8th day of May, 1874.

MARTIN F. WESSMANN.

Witnesses:
J. S. BROWN,
E. M. GALLAHER.