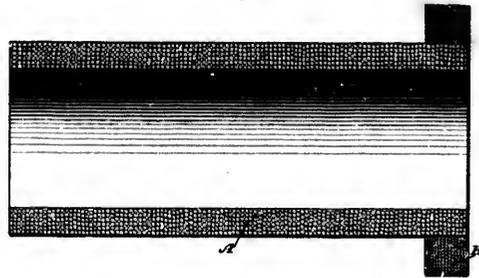


interior of the coil, but the hearing distance for a bullet external to the coils was no greater than before.<sup>1</sup>

Fig. 6.



Prof. Hughes<sup>2</sup> proposed to have two flat superposed coils wound on a single reel, so that the two coils should form a single one as regards their relative distance; and Mr. F. T. Bickford, Washington correspondent of the New York Tribune, suggested winding two wires side by side into a single coil, so that the relative distances of the wires from the bullet should be absolutely the same. Mr. Chas. E. Buell<sup>3</sup> and Dr. Chester A. Bell<sup>4</sup> proposed to determine the depth of the bullet beneath the surface by causing a similar bullet to approach the balancing coils until silence was restored; the secondary bullet it was presumed would then be at the same distance from the balancing coils as the embedded bullet from the exploring coils.

The results of all the experiments so far made were unsatisfactory. I had tried every thing that had been suggested, but 4 cm. remained the extreme limit of audibility for a bullet like that which had struck the President. Even when such a bullet was flattened by being fired against a board, and was presented with its flat side towards the coils of the explorer—the most favorable mode of presentation—no better result was obtained.

<sup>1</sup> The balance obtained was not quite perfect, and we have since discovered that the insulation of the wires of one of the secondary coils was defective.

<sup>2</sup> See Appendix, note 8.

<sup>3</sup> See Appendix, note 9.

<sup>4</sup> See Appendix, note 10.