

## OPTIMUM REVERBERATION IN AUDITORIUMS.

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One of the necessary considerations in designing or correcting the acoustics of an auditorium is to secure conditions that will insure an optimum time of reverberation. A number of publications have dealt with this question, but from somewhat different standpoints. The writer has attempted to discuss these results on a common basis to show any difference that may exist.

The optimum time for an average sound increases with the volume of the auditorium, varying from about 1 to 3 seconds for halls of small volume increasing to 1,000,000 cu. ft.

The audience has an effect on the time of reverberation because of the clothing worn. For this reason the optimum time is designed for an average audience in any hall, the remaining amount of absorption needed for perfect acoustics being obtained by the installation of materials.