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Subject: Re: Could this

Posted by [Tom Brennan](#) on Sat, 03 Aug 2002 18:17:01 GMT

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Pk---This all goes back to the famous "double-tap" incident at MGM in the 1930s. The sound track of Eleanor Powell tapdancing was being played back through a WE monitor with a 12 foot mismatch between the bass and treble horns. Double clicks, an echo, were heard. John Hilliard, a sound engineer at MGM investigated the problem and found the echo was caused by the path length difference. When he moved the tweeter horn back into the same plane as the basshorn driver the echo was gone. Hilliard'd subsequent experiments determined that the effect was frequency dependant and that 3ms (about 3 feet) mismatch was inaudible when the crossover was between 500 and 800hz. This incident was one of the things that spurred Hilliard to get his boss at MGM to finance the development of an improved theater playback speaker, the famous Shearer Horn. Hilliard went on to be the big Kahuna of engineering at Altec and is the Zeus of The Horn Gods.

Chicago Horn Club

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