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## The Effect of Different Styles of Mutes upon the Intensity and the Harmonic Structure of the Violin Tone

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THE EFFECT OF DIFFERENT STYLES OF MUTES UP-  
ON THE INTENSITY AND THE HARMONIC STRUC-  
TURE OF THE VIOLIN TONE

E. P. HORNE

The general problem was to study the effect of variations of the violin bridge upon intensity and timbre. In this paper a report will be given of the results with regard to the addition of different mutes to the bridge.

In general the results indicate that (1) muting reduces energy in the upper partials, but that the different mutes are not uniformly selective throughout all the partials, and (2) all mutes do not necessarily reduce the total intensity of all strings proportionately.

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INTENSITY OF THE VIOLIN TONE AS A FUNCTION  
OF BOW SPEED, PRESSURE, AND POINT OF APPLICA-  
TION OF THE BOW

ARNOLD M. SMALL

This is a report of one category of findings arising from a general program of research concerned with tone production on the violin. The development of a mechanical bow has made possible the control of bowing factors so that each factor may be varied independently.

In general it has been found that, for a given point of contact, bow speed is the predominant factor in determining the intensity of tone. Variation in the point of contact, relative to the distance from the bridge, results in an increase in intensity as the bridge is approached.

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INTERVAL PREFERENCE

CURTIS TUTHILL

Tuned intervals were paired with each member of a series of mistuned intervals and the subjects were asked to indicate which