

Fig. 3: Principal Vibrational Modes of a Bell

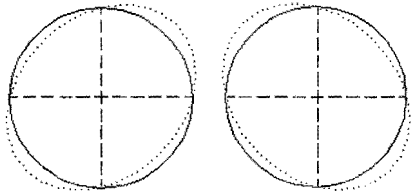
NODAL MERIDIANS

Looking at mouth of bell

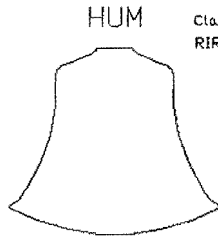
NODAL CIRCLE LOCATIONS

Ring driven

Shell driven

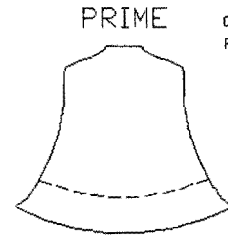


4 Nodal Meridians



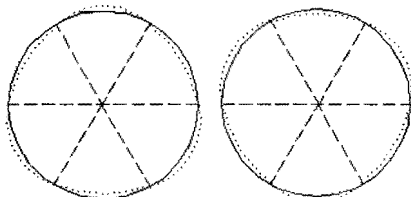
0 Nodal Circles

HUM  
Classification  
RIR n=2, n=0

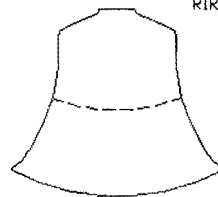


1 Nodal Circle

PRIME  
Classification  
R=1 n=2, n=1

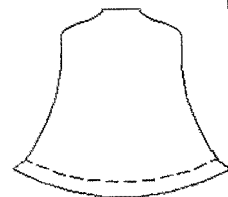


6 Nodal Meridians



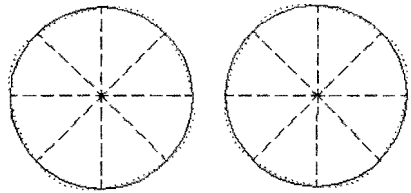
1 Nodal Circle

TIERCE  
Classification  
RIR n=3, n=1

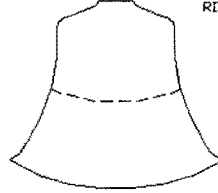


1 Nodal Circle

QUINT  
Classification  
R=1 n=3, n=1

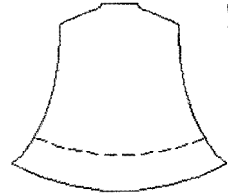


8 Nodal Meridians



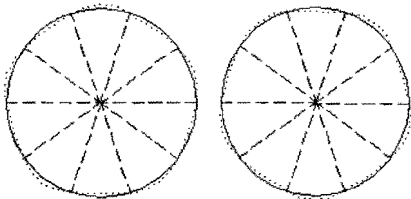
1 Nodal Circle

NOMINAL  
Classification  
RIR n=4, n=1

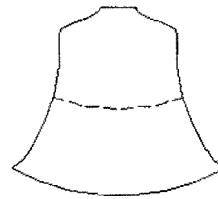


1 Nodal Circle

UPPER THIRD  
Classification  
R=1 n=4, n=1

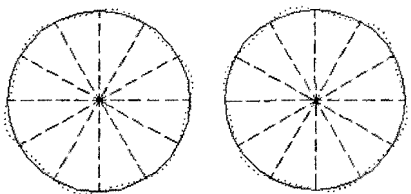


10 Nodal Meridians

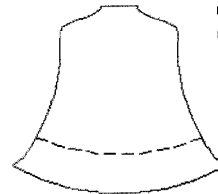


1 Nodal Circle

UPPER QUINT  
Classification  
RIR n=5, n=1



12 Nodal Meridians



1 Nodal Circle

UPPER OCTAVE  
Classification  
RIR n=6, n=1

----- Location of Nodal Meridians and Nodal Circles  
 ..... Modes of Vibration. Each segment alternates between  
 Vibrating Inwards (Left diagram) and outwards (Right diagram).

Classification scheme as proposed by  
 Perrin et al.