Let \( A_1 = (1,2,3,4,5,6,...) \) be the sequence of all natural numbers. Define \( A_{n+1} \) by adding one to all terms in \( A_n \) that are divisible by \( n \). For example, 
\[ A_2 = (2,3,4,5,6,7,8,9,...) \] and 
\[ A_3 = (3,3,5,5,7,7,9,9,...). \] 
Find with proof all numbers \( n \) for which the first \( n-1 \) terms of \( A_n \) are all equal to \( n \).