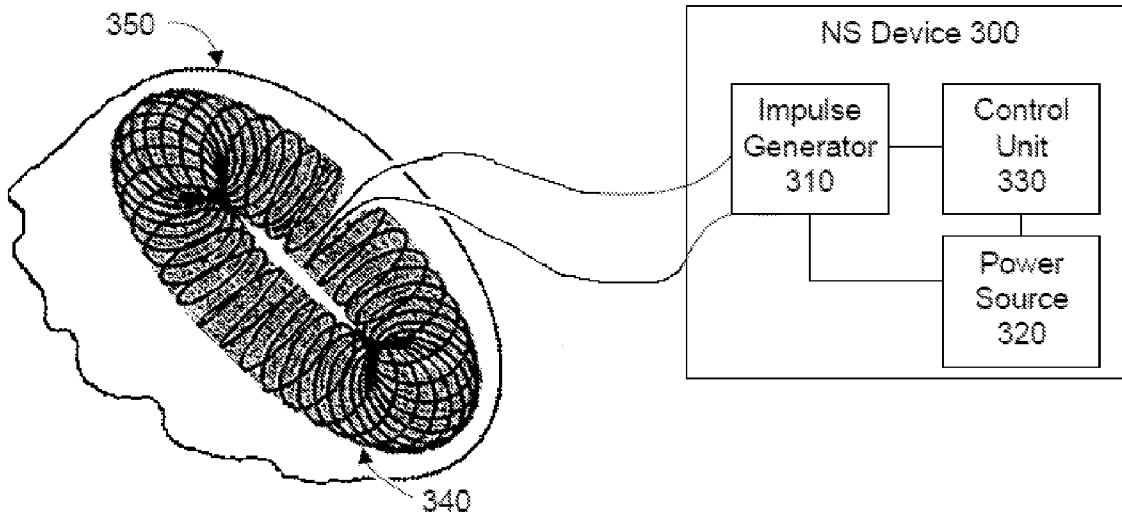


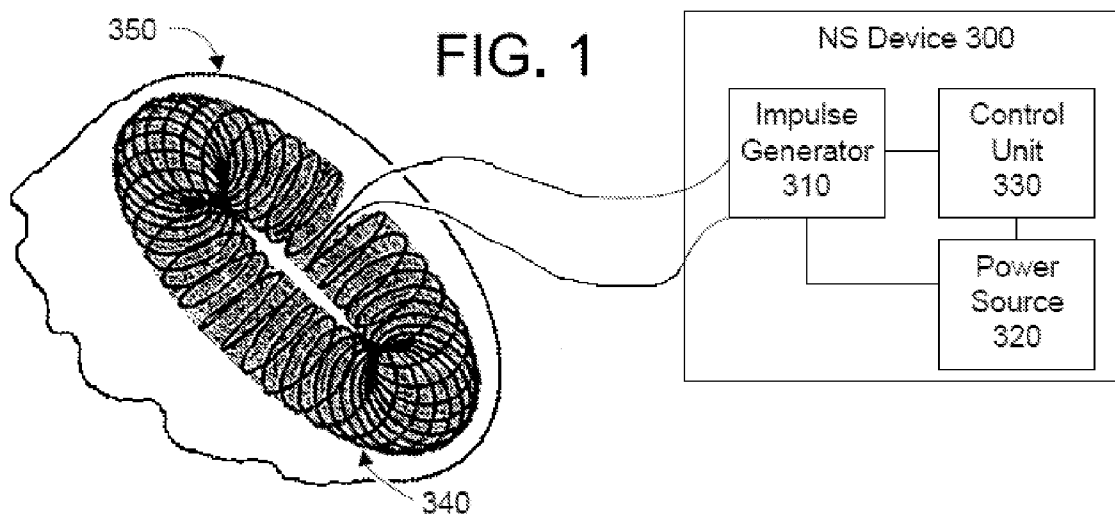


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**Simon et al.**(10) **Pub. No.: US 2011/0046432 A1**(43) **Pub. Date: Feb. 24, 2011**(54) **NON-INVASIVE TREATMENT OF  
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(US)(21) Appl. No.: **12/859,568**(22) Filed: **Aug. 19, 2010****Related U.S. Application Data**(63) Continuation-in-part of application No. 12/408,131,  
filed on Mar. 20, 2009, which is a continuation-in-part  
of application No. 11/591,340, filed on Nov. 1, 2006,  
now Pat. No. 7,747,324.(60) Provisional application No. 60/736,001, filed on Nov.  
10, 2005, provisional application No. 60/736,002,  
filed on Nov. 10, 2005, provisional application No.  
60/772,361, filed on Feb. 10, 2006, provisional appli-  
cation No. 60/814,313, filed on Jun. 16, 2006, provi-  
sional application No. 60/786,564, filed on Mar. 28,  
2006.**Publication Classification**(51) **Int. Cl.****A61N 2/04** (2006.01)**A61H 1/00** (2006.01)**A61N 7/00** (2006.01)**A61N 5/06** (2006.01)**A61F 7/00** (2006.01)**A61N 1/36** (2006.01)(52) **U.S. Cl. .... 600/14; 601/46; 601/2; 607/88;**  
**607/96; 607/42**(57) **ABSTRACT**

Devices, systems and methods are disclosed for treating bron-  
chial constriction related to asthma, anaphylaxis or chronic  
obstructive pulmonary disease. The treatment comprises  
transmitting impulses of energy non-invasively to selected  
nerve fibers that are responsible for smooth muscle dilation.  
The transmitted energy impulses, comprising magnetic and/  
or electrical, mechanical and/or acoustic, and optical and/or  
thermal energy, stimulate the selected nerve fibers.





**FIG. 2**

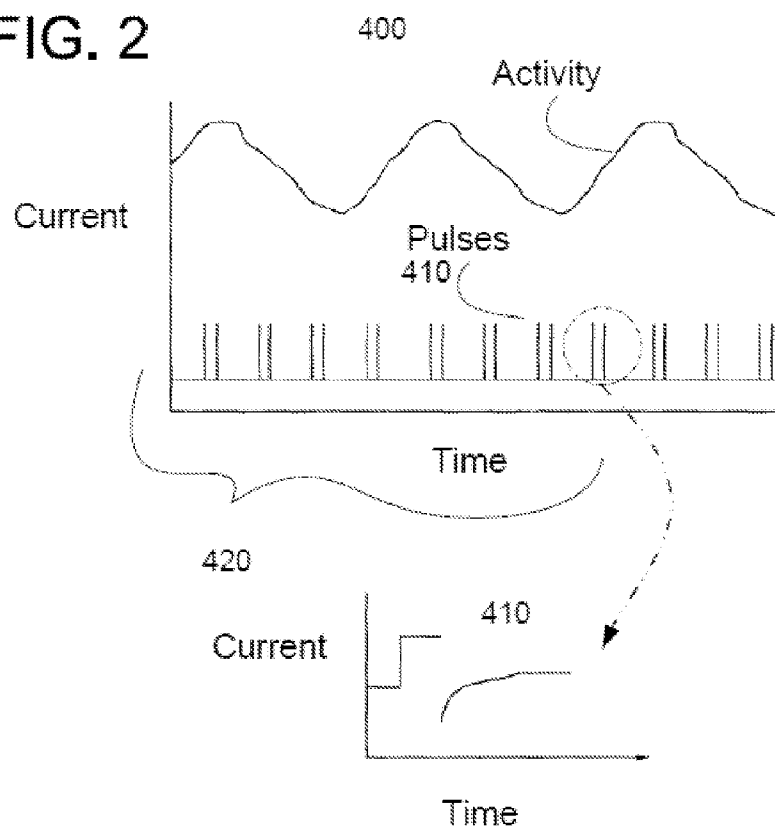


FIG. 3

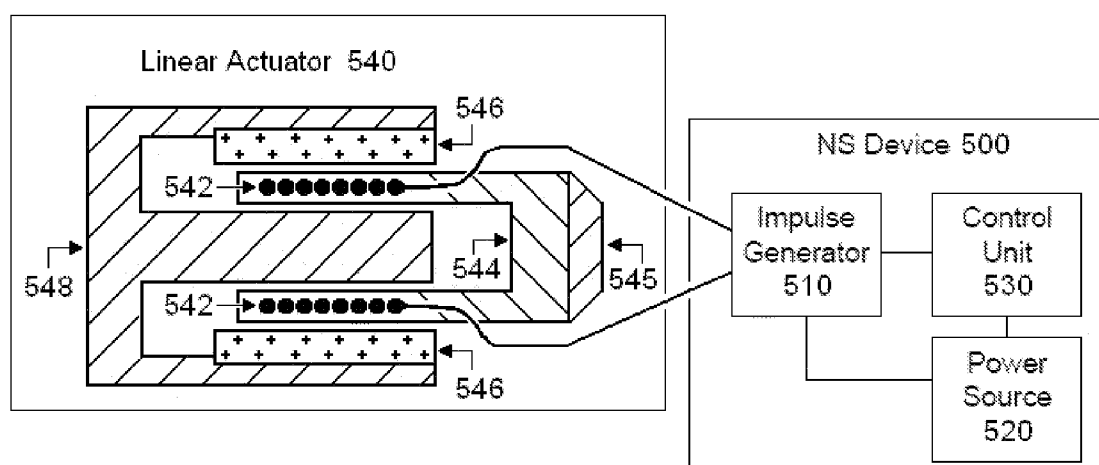


FIG. 4

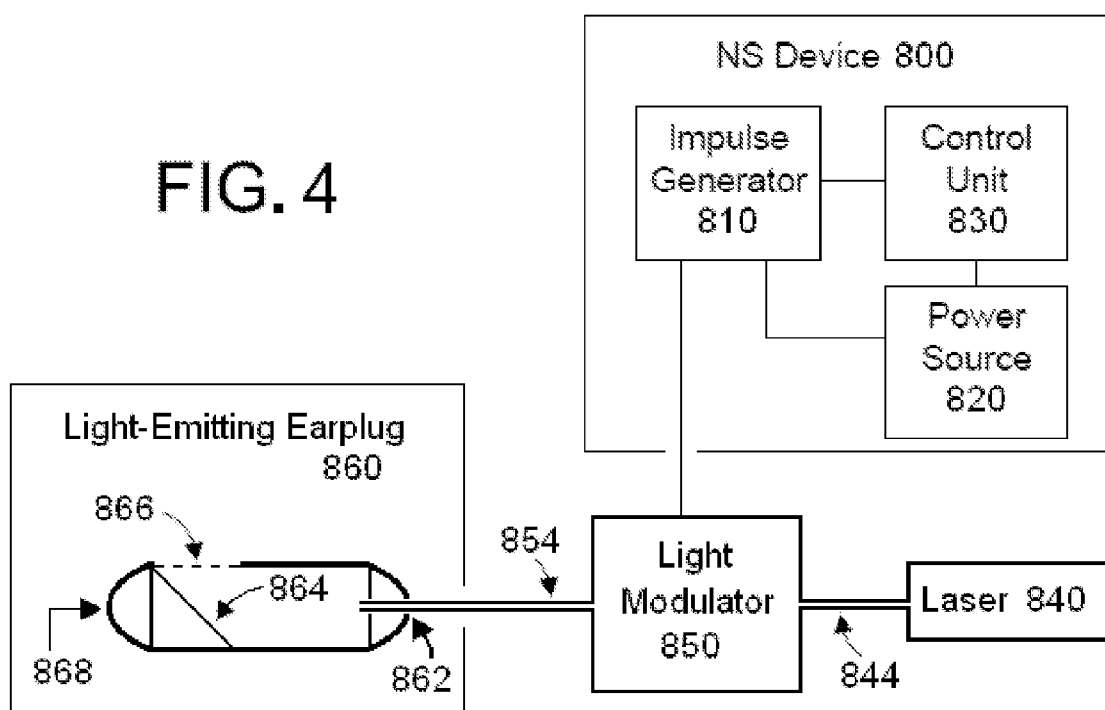


FIG. 5

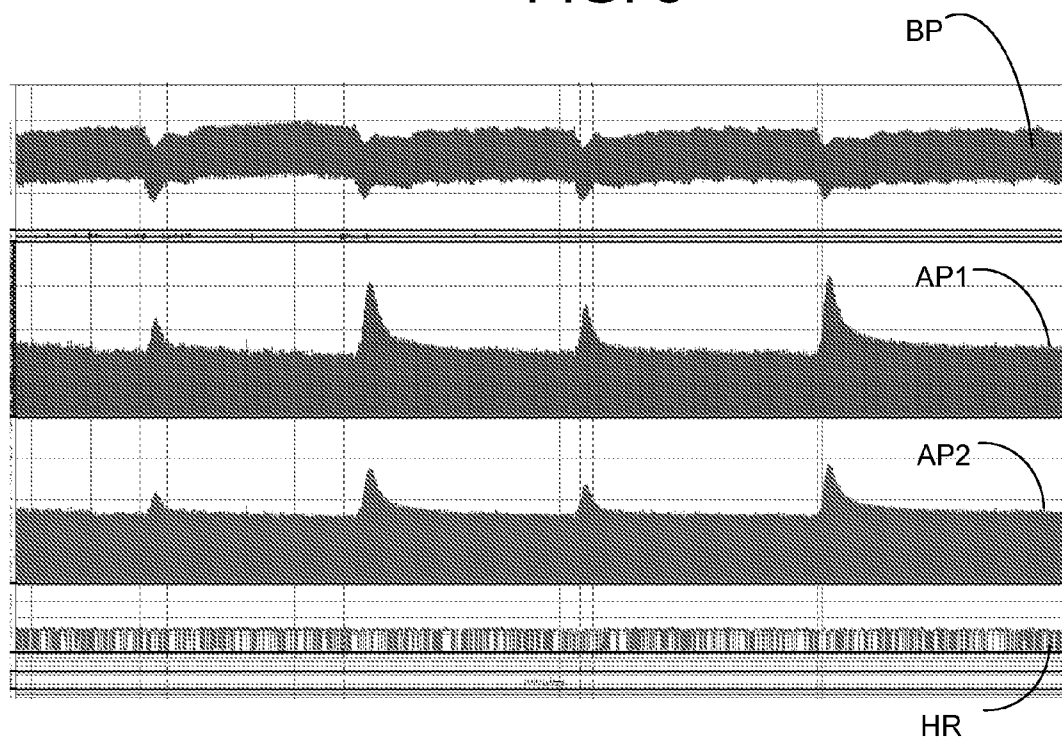
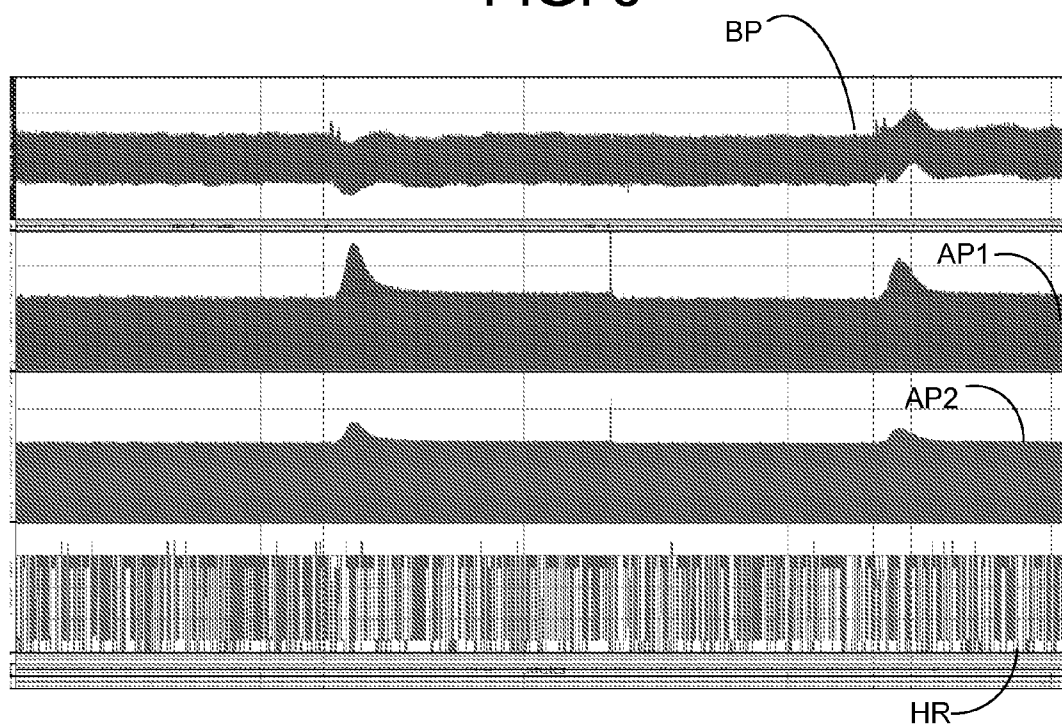


FIG. 6





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