

# Ex. PGS 1042



# United States Patent [19]

Ambs et al.

[11] **Patent Number:** **6,011,752**

[45] **Date of Patent:** **Jan. 4, 2000**

[54] **SEISMIC STREAMER POSITION CONTROL MODULE**

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[57] **ABSTRACT**

[21] Appl. No.: **09/128,336**

A seismic streamer position control module has been invented having a body with a first end and a second end and a bore therethrough from the first end to the second end for receiving a seismic streamer therethrough, at least one control surface, and at least one recess in which is initially disposed the at least one control surface, the at least one control surface movably connected to the body for movement from and into the at least one recess and for movement, when extended from the body, for attitude adjustment. In one aspect the seismic streamer position control module body has tapered ends.

[22] Filed: **Aug. 3, 1998**

[51] **Int. Cl.<sup>7</sup>** ..... **G01V 1/00**

[52] **U.S. Cl.** ..... **367/17; 114/235; 114/244; 114/242**

[58] **Field of Search** ..... 367/61, 17; 181/110; 340/7; 114/235, 244, 242

[56] **References Cited**

**U.S. PATENT DOCUMENTS**

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**20 Claims, 5 Drawing Sheets**

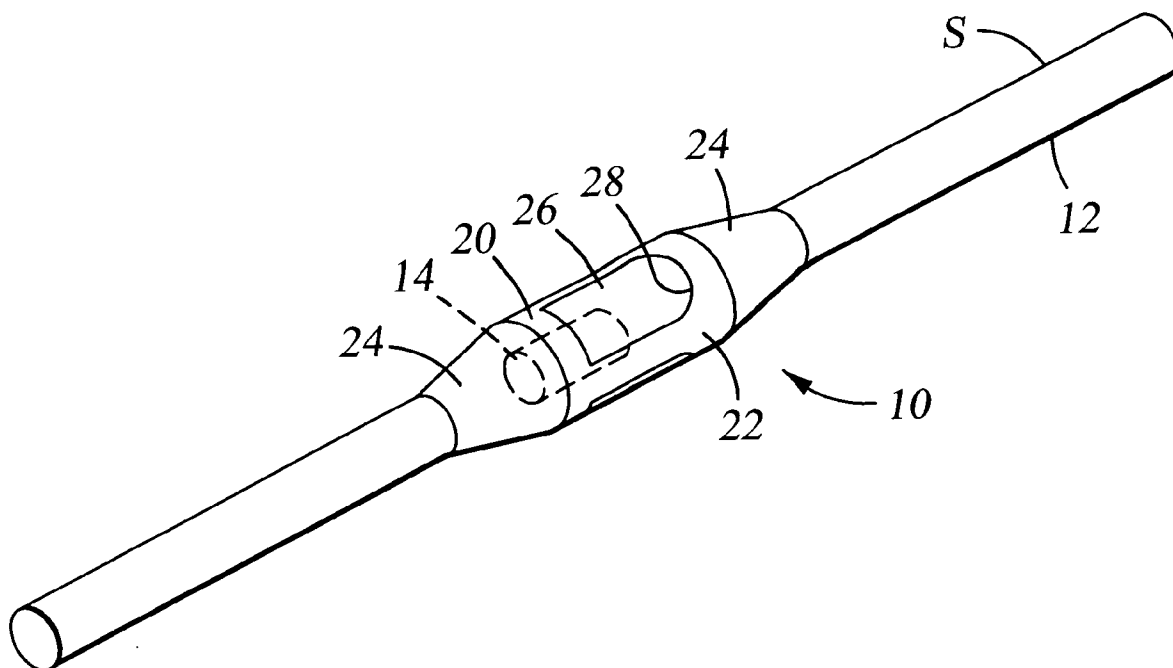


Fig. 1

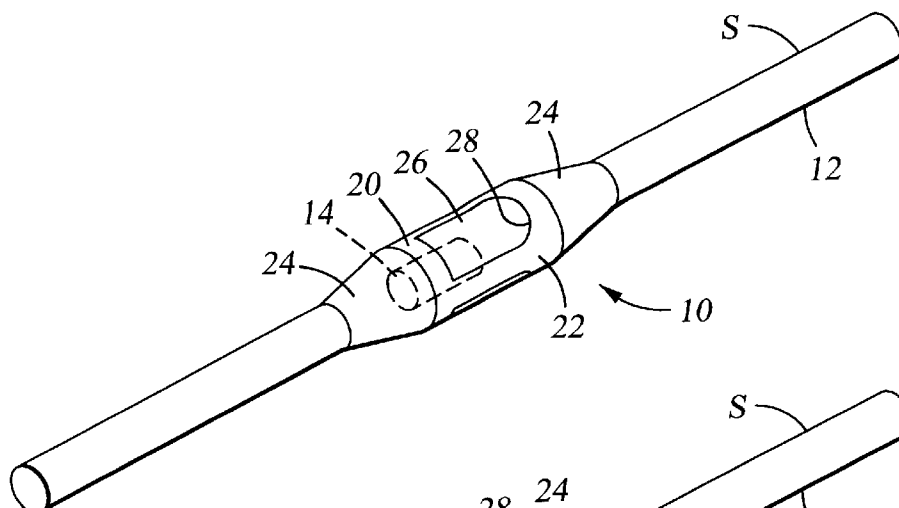


Fig. 2

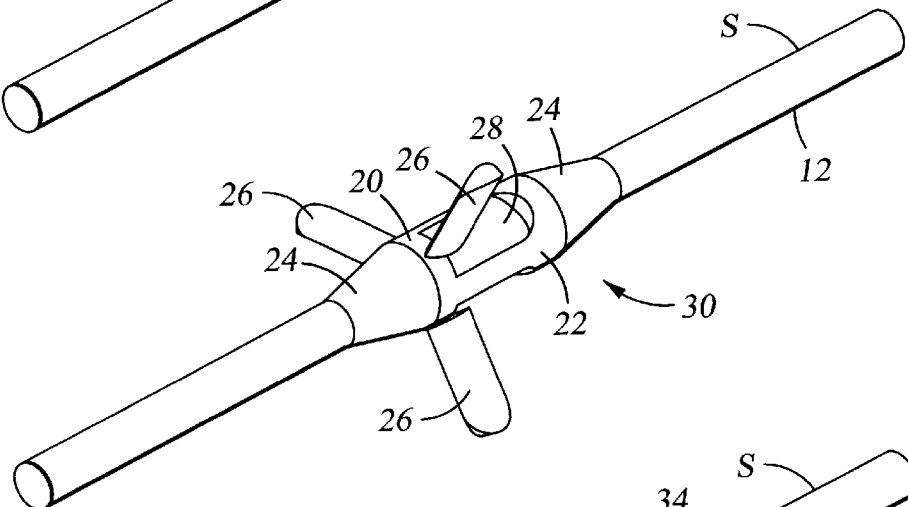


Fig. 3A

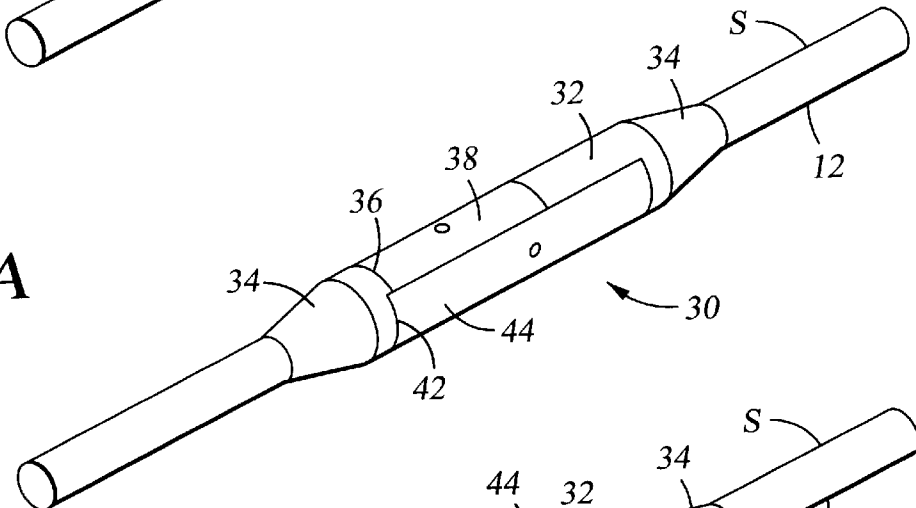
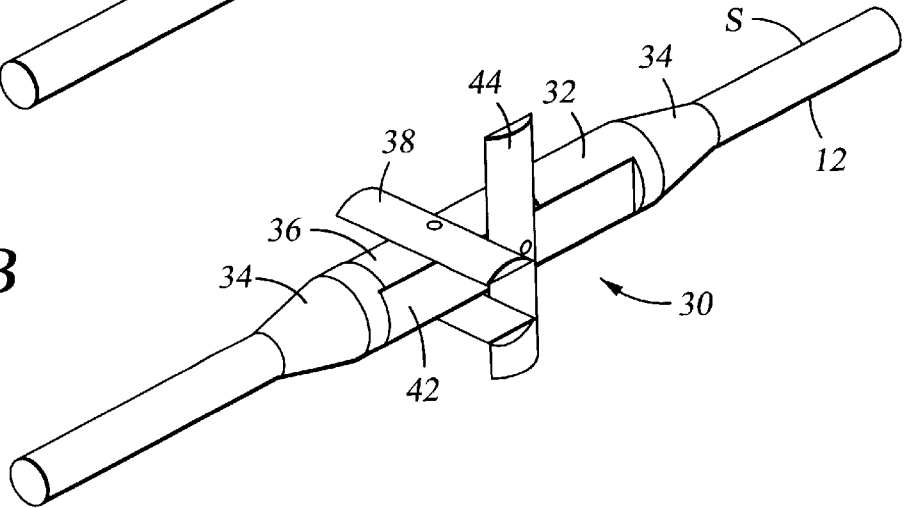


Fig. 3B



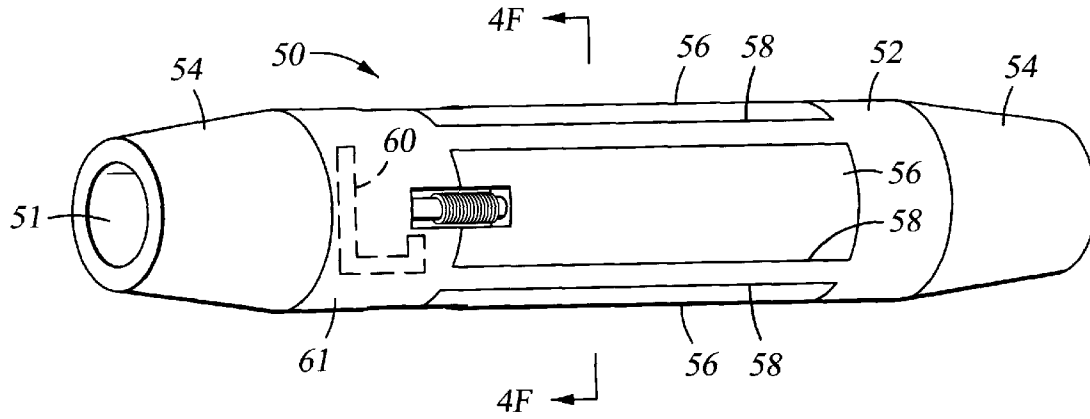


Fig. 4A

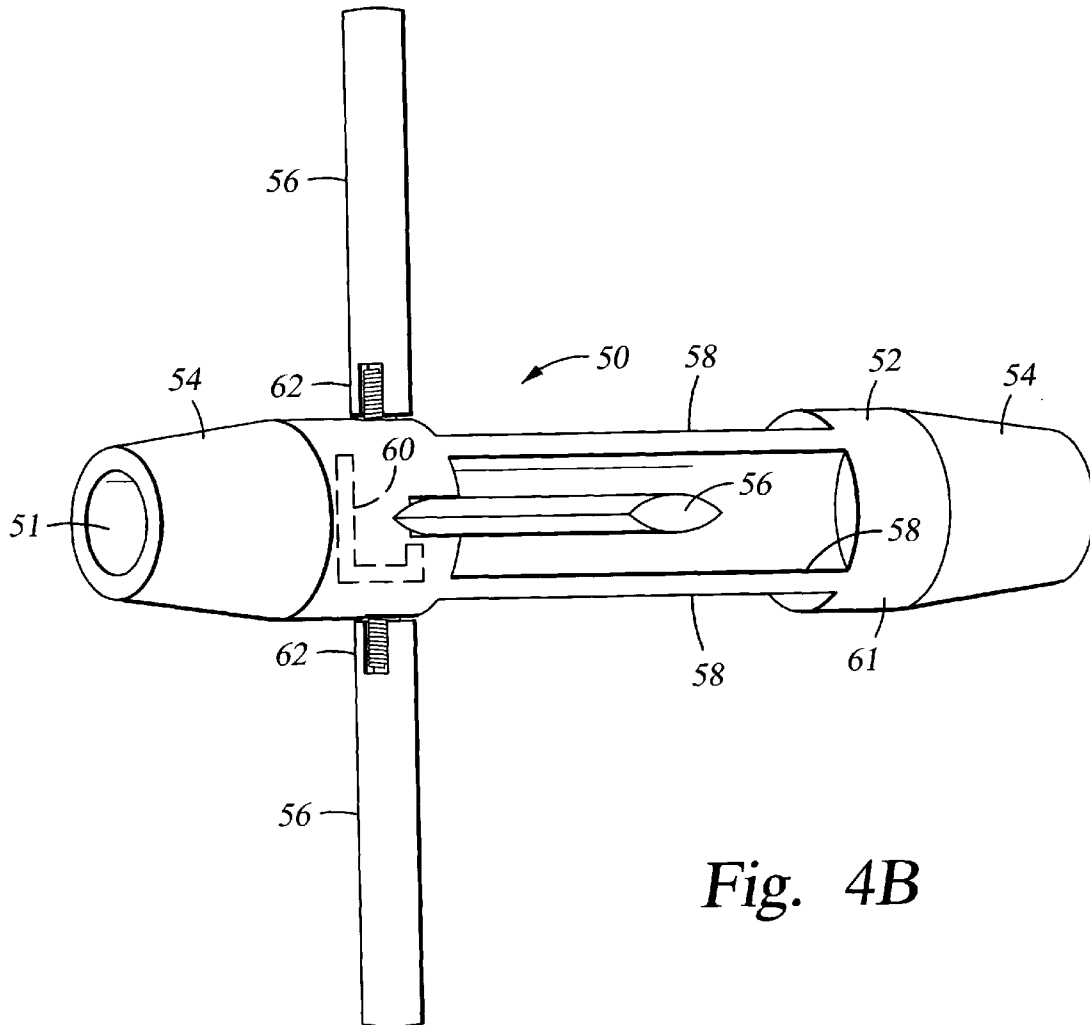


Fig. 4B

Fig. 4C

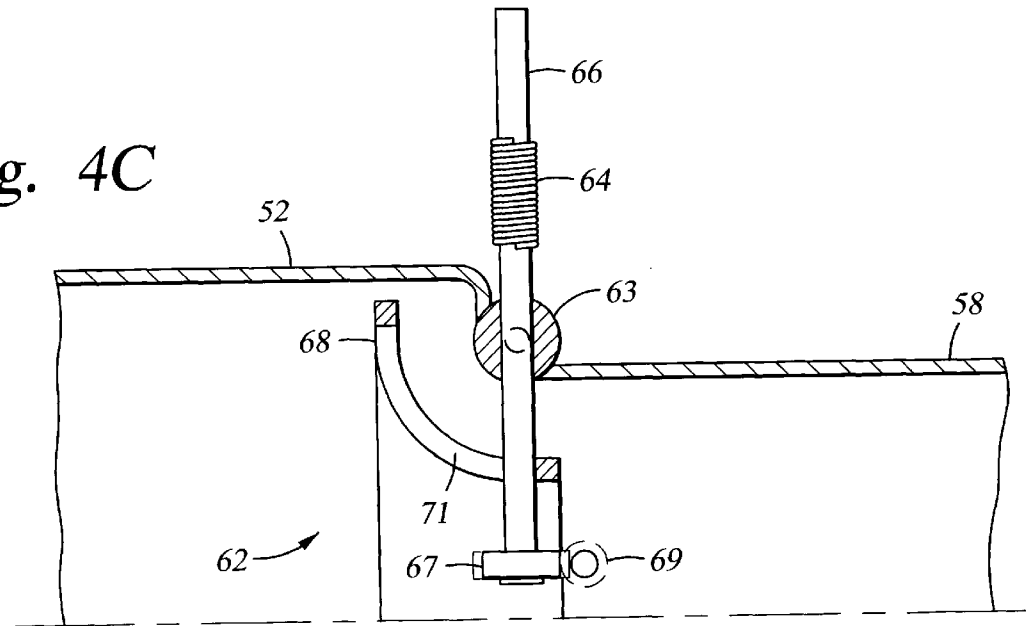


Fig. 4D

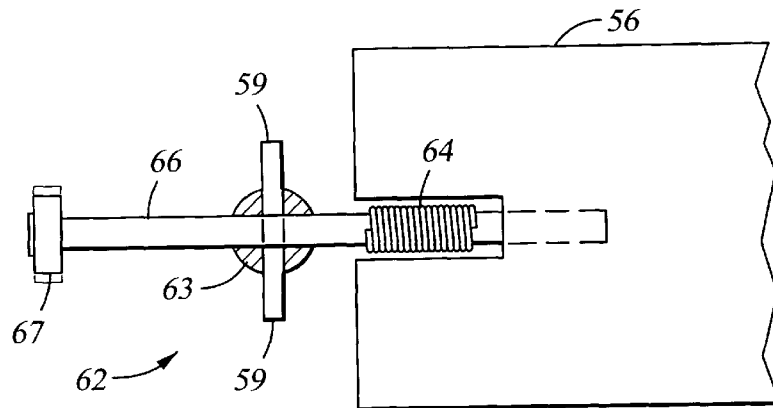
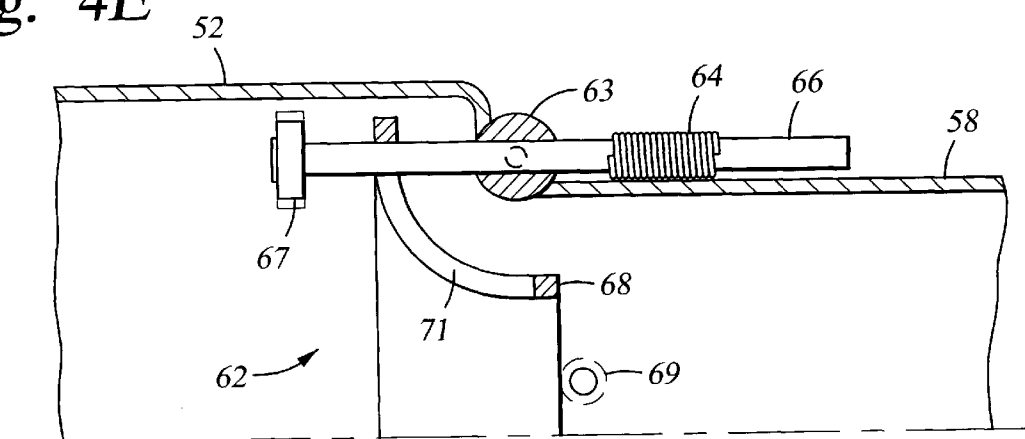


Fig. 4E



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