

The locking pin 112C is inserted through the holes 112B in both segments 112A when they are placed together. The pin 112C may be retained in place by a “hairpin” spring clip 112D or similar retaining element.

The mast 12 may have a length in the range of about 40 to 120 feet (13 to 40 meters) although the particular length of the mast 12 is not intended to limit the scope of the invention. The length of the mast 12 used in any particular application of the mast and stay cable system 10 may be selected such that an antenna element 14 disposed at the upper end of the mast 12 will be positioned above any vegetation or other obstruction to radio communication. If the mast 12 is formed from longitudinally coupled segments, the length of the mast 12 may be readily changed to suit the particular application.

The mast 12 may be supported on its bottom end when the system 10 is erected by a support spike 26 coupled or affixed to the bottom end of the mast 12. The support spike 26 may be a sharp pointed, rigid device intended to penetrate the ground surface 30 when the mast 12 is lowered to the ground 30, or, alternatively, the support spike 26 may be a blunt-ended device configured to rest in a suitable receptacle 26A inserted into the ground 30. The purpose of the support spike 26, however secured to the ground 30, is to prevent lateral movement of the bottom of the mast 12. In the event a receptacle 26A is used, the mast 12 may be configured without a support spike

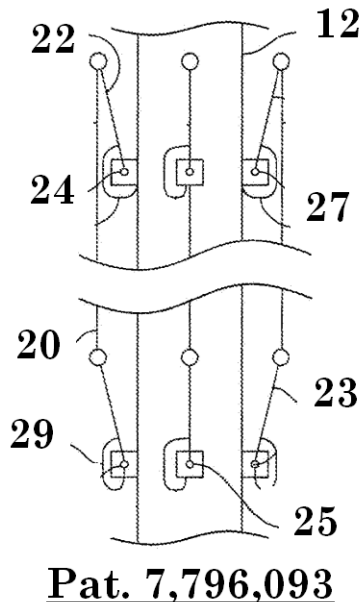


Figure 4: Detailed view of tensioning arms.

as a separate and distinct element. In such case, the lower end mast 12 may be inserted directly into the receptacle 26A.

During assembly of the mast system 10, the mast 12 may be suspended from one end of a support cable 16. The other end of the support cable 16 may be held above the mast position from a helicopter or other device such as a crane or winch. The cable 16 may be connected to the mast 12 by a cable support 31, which may be in the form of a rod, channel, I-beam, stretched cable or other structure that can support a cable loop, closed eye, ball or other termination coupled to or formed in the end of the cable 16.

In the present embodiment, the cable support 31 may be in the form of a rod to engage a loop in the end of the cable 16. The support rod 31 may be configured such that when the mast 12 is supported by the helicopter or other device, the cable 16 will be stopped from moving at the upper end of the cable support rod 31 so as to transfer the weight of the mast

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