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Attest

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United States Patent [19]

Lin

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[45] Date of Patent: Apr. 27, 1999

[54] **SAFETY METHOD OF CONSTRUCTION A PRESTRESSED CABLE-STAY BRIDGE**

[76] Inventor: **Wei-Hwang Lin**, Dept. of Military Engr. Chinese Military Academy 830 R.O.C., Feng-Shan, Taiwan

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[52] **U.S. Cl.** **14/20**; 14/18; 14/21; 14/23; 14/77.1

[58] **Field of Search** 14/18, 19, 20, 14/21, 77.1, 23

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Primary Examiner—Thomas B. Will
Assistant Examiner—Gary Scott Hartmann

[57] **ABSTRACT**

A method of construction a prestressed cable-stay bridge is provided. The method includes the constructing at least a tower having a pier, a pair of masts and a girder between the masts for securing a deck, a main beam supported on the deck along a longitudinal direction of the bridge, a pair of sub-beams connect to two ends of the main beam and suspended from a plurality of temporal stay cables from the top of the masts, an upper portion and a plurality of segment secured on the top of the main beam and the sub-beam after the performance of on the spot prestressing procedure, a plurality of side reinforcements secured to the elongate gaps at two lateral side of the bridge, a plurality of permanent stay cables instead of the temporal stay cables for suspending the bridge from the inner side of the masts and a roadway paved on the top of the bridge. This disclosure further includes a plurality of safety plates provide along the lateral sides of the bridge to ensure a safe and convenient working condition to the working personnel.

14 Claims, 11 Drawing Sheets