

(12) **United States Patent**
Gary

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(54) **AUTOMATED EXCHANGE FOR TRADING
DERIVATIVE SECURITIES**

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Related U.S. Application Data

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(51) **Int. Cl.**⁷ **G06F 17/60**

(52) **U.S. Cl.** **705/37; 705/36**

(58) **Field of Search** **705/37, 36, 26**

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Primary Examiner—Eric W. Stamber

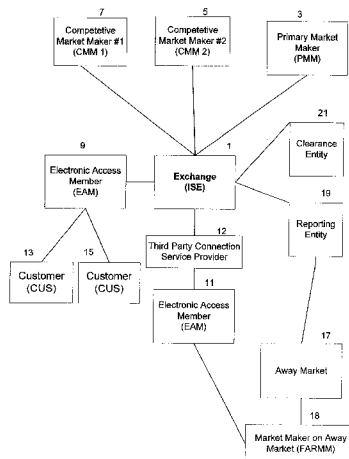
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(57) **ABSTRACT**

An automated exchange is provided for matching incoming orders for the purchase or sale of financial instruments, such as options contracts, with previously received orders. The exchange allocates the matching of orders first to fill customer orders and then to fill professional orders on a pro rata basis. A primary market maker is given preference over other market professionals. Market professionals that enter larger orders into the book receive a proportionally larger portion of the incoming order. The exchange automatically maintains a minimum size by deriving orders for professionals across a range of prices when orders at the market price are exhausted. The exchange automatically derives orders for professionals to join with market-improving orders when the market-improving orders are less than the minimum market size.

75 Claims, 23 Drawing Sheets



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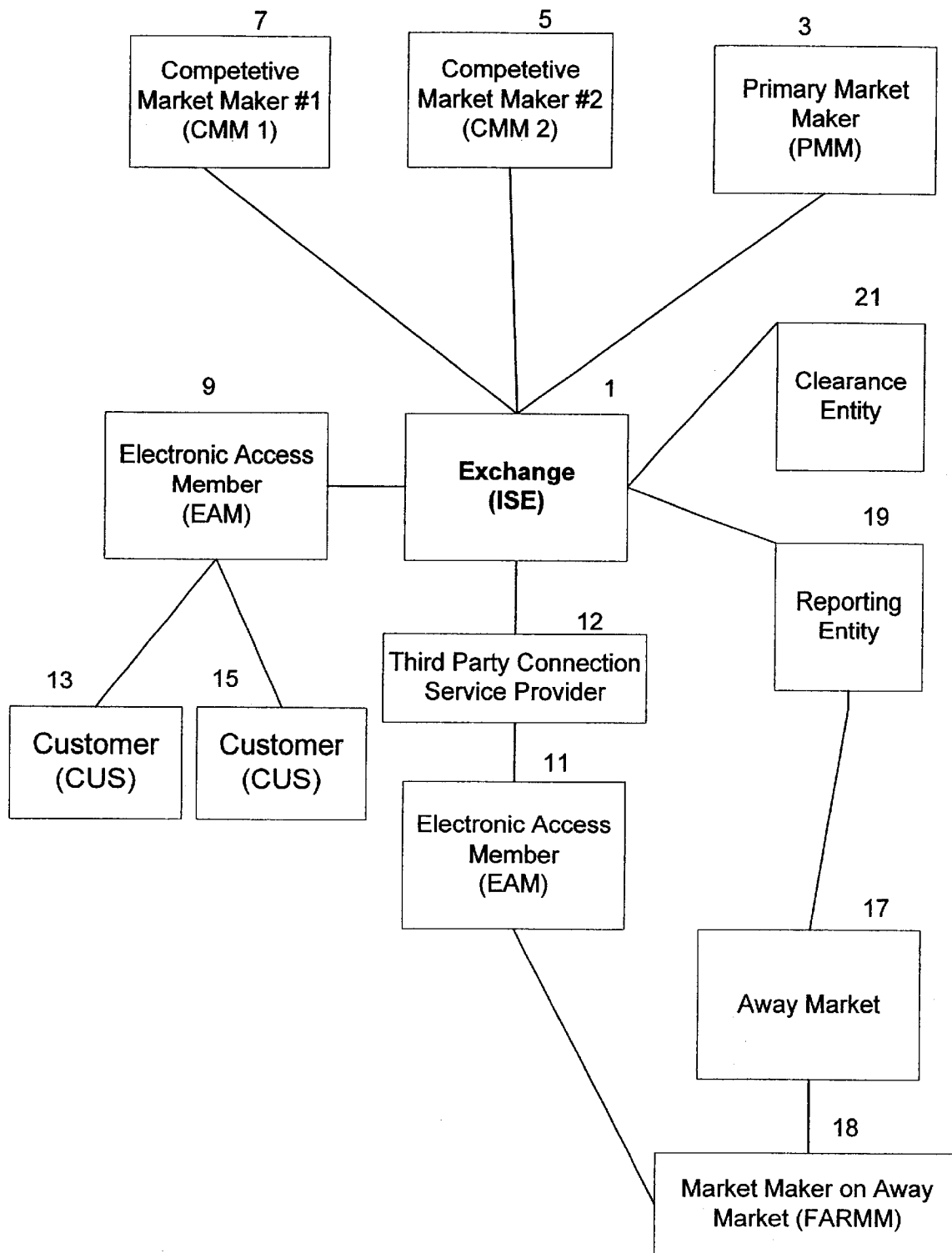


FIG. 1

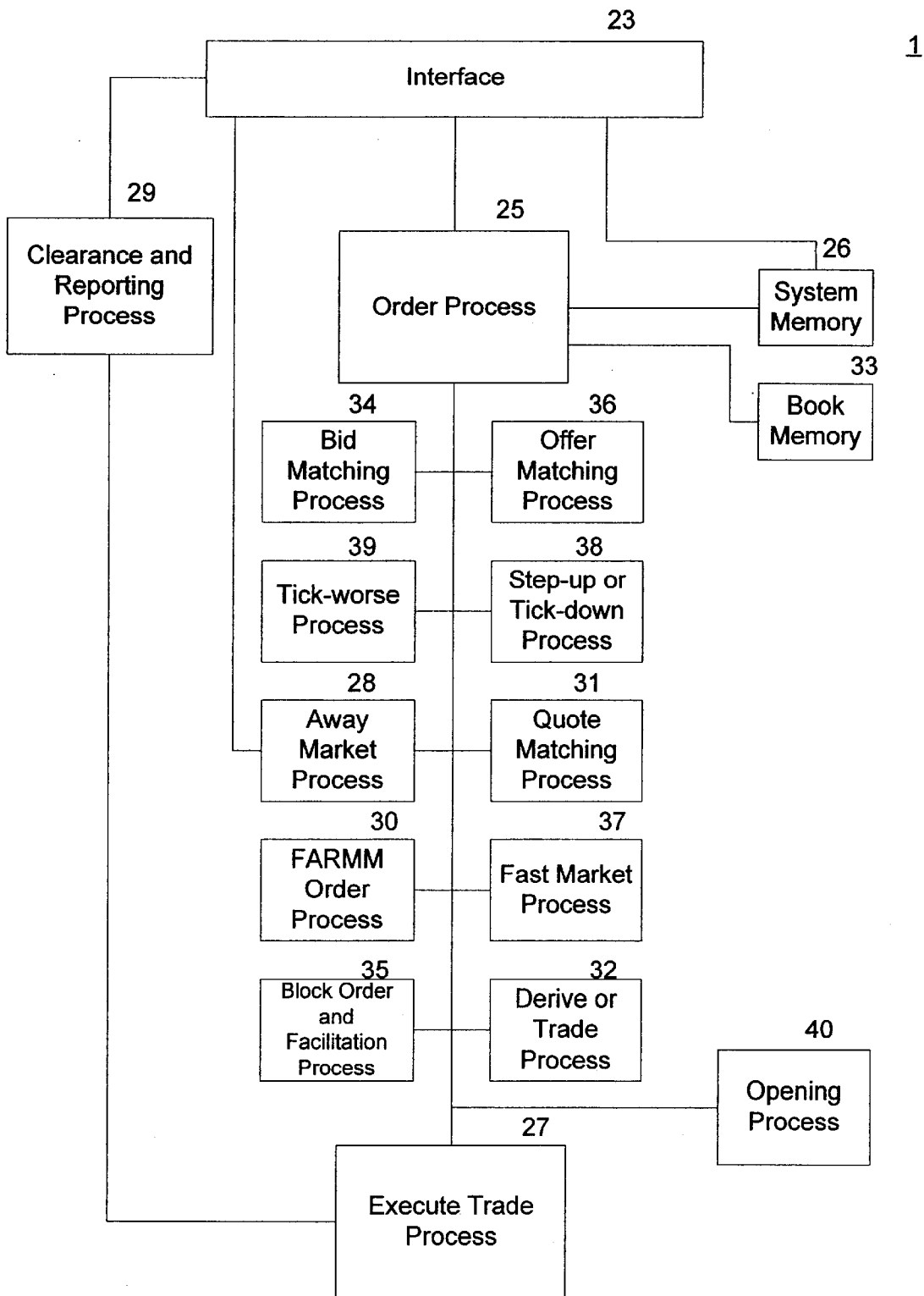


FIG. 2

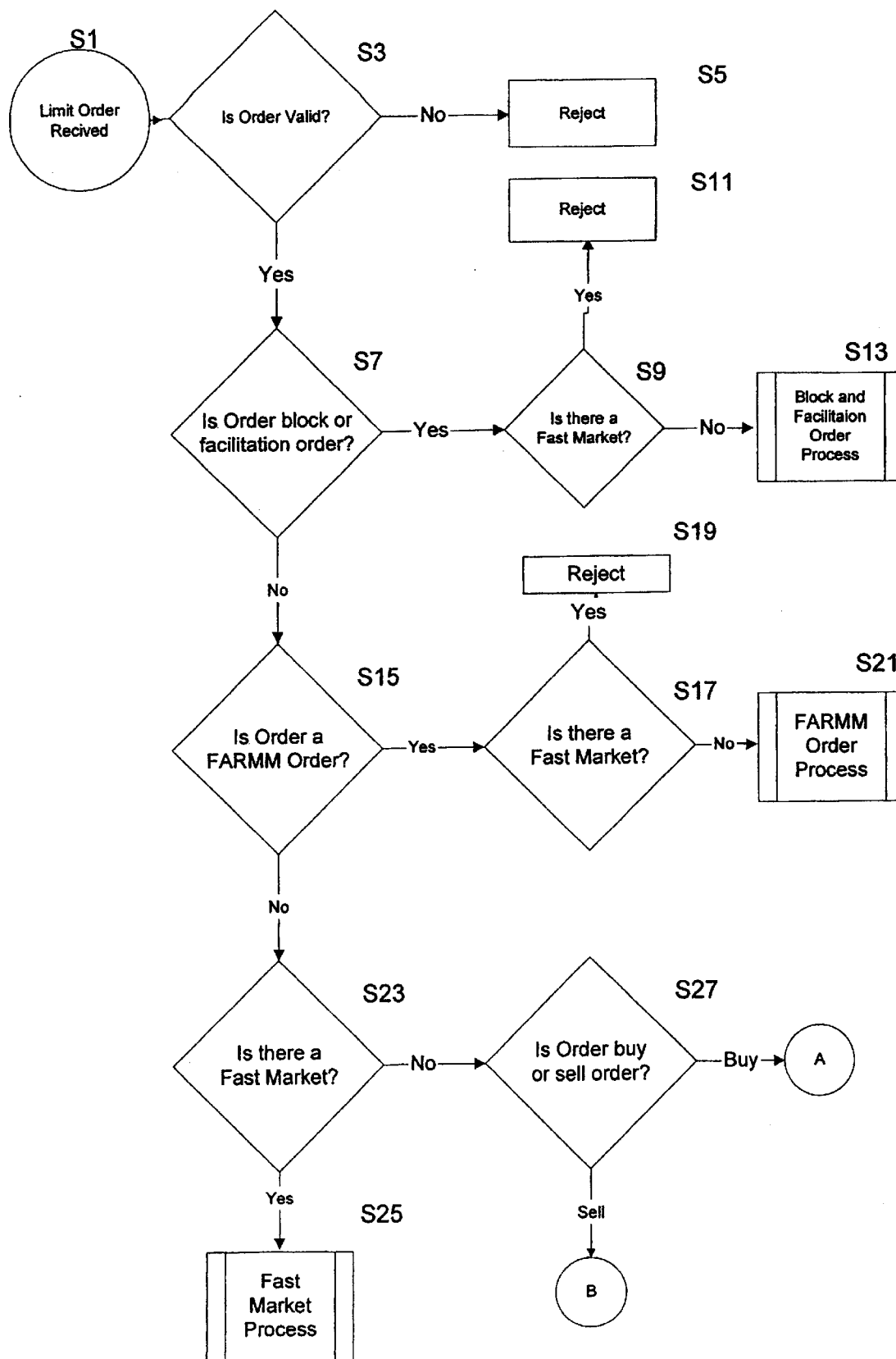


FIG. 3(a)

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