

ABSTRACT**CONVEYING APPARATUS**

A conveying apparatus and system comprising a conveyor having a plurality of longitudinally aligned bars aligned to form a platform whereon a cargo for conveying may be placed. Reciprocating vertical actuator is provided to raise and lower at least one bar in a direction substantially normal to its longitudinal axis and to a pre-set distance from the platform. Reciprocating longitudinal actuator is also provided to allow at least one bar to shift forwards and backwards along its longitudinal axis for a predetermined distance. The vertical and longitudinal actuators are coordinated in operation such that a cargo placed on the conveyor will be urged forward from one end to the other end through cycles of incremental steps of a predetermined distance. Each cycle involves a forward load-shifting step and a backward retracting step.

FIGURE 1