

**TITLE OF INVENTION: STORAGE SHELF FIXING RAIL CONVEYING DEVICE  
AND CONVEYING SYSTEM**

**ABSTRACT**

A storage shelf fixing rail conveying device and a conveying system thereof, the device comprising: a transverse rail (11), a first stand column (12), a first movable component (13), and a connecting mechanism of a task module (14). The transverse rail (11) is fixed on a shelf (10); the first stand column (12) is vertically arranged on the transverse rail (11) and can transversely slide; the first movable component (13) is arranged on the first stand column (12) and can slide along the first stand column (12); the connecting mechanism of the task module (14) is provided on the first movable component (13); the task module (14) is driven by the first movable component (13) to access cargo box and/or cargo, and puts the cargo box and/or the cargo into a connecting component of a freight robot (17) running on bottom of the shelf (16) or takes out the cargo box and/or the cargo from the connecting component. By means of using the storage shelf fixing rail conveying device and the conveying system thereof, storage space utilization rate, entering and exiting speed, and sorting efficiency of cargo in existing warehousing systems can be greatly improved.

FIG. 4