

# **TITLE OF INVENTION: RACK, WAREHOUSING SYSTEM AND CONVEYING SYSTEM**

## **ABSTRACT**

A rack (10), which is used for warehousing. The rack is provided with a multi-layer storage space (101), wherein a goods box (104) is placed at each warehousing site (103) of the storage space; a fixed rail conveying apparatus (102) or fixed rail conveying apparatuses (102) is/are provided on one side and/or both sides of the rack, by means of one first moving member (13), each fixed rail conveying apparatus drives a task module (14) for storing/retrieving the goods box and/or goods, so as to place the goods into or retrieve the goods from a connecting assembly of a freight robot (17) operating at the bottom (16) of the rack, a partition plate (18) for one or more warehousing sites on the bottom-most rack tier is removed from the rack so as to provide a passage for the freight robot on the ground; alternatively, one or more rack tiers (19) are removed from the rack to provide a matching height for supporting the operation of the freight robot on the ground. The present application greatly improves the warehousing space utilization rate and goods incoming/outgoing speed and sorting efficiency of existing racks and warehousing systems.

FIG. 1