

DEVELOPMENT OF MARKING FIXTURE IN TROLLEY BAGS

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ABSTRACT

We are reviewing research papers we have used for our final year project named development of marking fixture in trolley bags. A **fixture** is a work-holding or support device used in the manufacturing industry. Fixtures are used to securely locate (position in a specific location or orientation) and support the work, ensuring that all parts produced using the fixture will maintain conformity and interchangeability. Using a fixture improves the economy of production by allowing smooth operation and quick transition from part to part, reducing the requirement for skilled labor by simplifying how work pieces are mounted, and increasing conformity across a production run.

We are developing a fixture useful for marking wheels in luggage bags. Before this, company was using fully manual way to trace the position of wheels but with this new way we can minimize the errors coming through tracing. this new way is easier and cheaper. one only has to adjust the fixture and trace the points.

Wheeled luggage does not function well in adverse conditions. You will have to drag your bag through any rough terrain you encounter, potentially ruining the fabric and/or wheels. You wouldn't want to roll your suitcase w/o any obstacle through any of the following conditions: beaches (sand), dirt roads, cobblestone streets, mud, bodies of water, staircases, between train & platform.

The bottom line is that wheeled luggage is a perfectly fine choice under ideal conditions. Hence fixture helps us to locate perfect point of wheel and assemble it on right spot with marking. Fixtures must always be designed with economics in mind; the purpose of these devices is to reduce costs, and so they must be designed in such a way that the cost reduction outweighs the cost of implementing the fixture.

1. HOLLOW WHEEL ASSEMBLY OF LUGGAGE, Wei-Hung Lai

A hollow wheel assembly of a luggage includes a wheel mount, two wheel members, and a hollow shaft. The wheel mount has a shaft sleeve, in which the hollow shaft is received. The wheel members are connected to opposite ends of the hollow shaft for free rotation. The hollow shaft has a vision passage, and the wheel members have a plurality of vision bores, whereby one may see through the wheel members via the vision bores and the vision passages when the wheel members are rotating. The author explains the assembly of hollow shaft here with the help of shaft.

1.1 BACKGROUND OF THE INVENTION

The present invention relates to a wheel assembly, and more particularly to a hollow wheel assembly of a luggage. Luggage, so called wheeled luggage, is a case with a plurality of wheel assemblies on a bottom thereof for user may draw the luggage to walk, a wheel holder seat and a wheel. The wheel is connected to the wheel holder seat by a pivot pin, so that the wheel is free to rotation.

1.2 SUMMARY OF THE INVENTION

The primary objective of the present invention is to provide a hollow wheel assembly of a luggage, which has a vision passage through the wheel assembly. The secondary objective of the present invention is to provide a hollow wheel assembly of a luggage, which has a structure without a bearing to simplify the structure. In order to achieve

the objective of the present invention, a hollow wheel assembly. which is adapted to be mounted on a bottom of a case of a luggage.

2. METHOD FOR ATTACHING A CARRIER TO A PIECE OF ROLLING LUGGAGE, Douglas Harland Murdoch

A method for attaching a carrier to a piece of rolling luggage employs a strap having an opening defined in the strap for receiving a handle assembly of the piece of rolling luggage in order for the carrier to be supported by the piece of rolling luggage. Author Douglas Harland Murdoch highlighted the trolley bags which can drag over surface road. here we can get to know the very important factors which effects on dragging force.

2.1 FIELD OF THE INVENTION

The field of the invention generally is that of wheeled carriers for articles and straps for carriers.

2.2 BACKGROUND OF THE INVENTION

People want carriers that enable them to transport articles without excessive effort the wheels support the weight of the luggage and its contents. The user pulls a handle attached to the receiver in order to move the piece of rolling luggage while the wheels support its weight the receivers of existing pieces of rolling luggage lack adequate access to the interior compartment. In addition , the interior compartment should be as large as possible in order to accommodate large articles when the size of the receiver is limited , such as by the need to satisfy carry - on luggage size requirements A person often will travel with two carriers , bags at least one of them being a piece of rolling luggage.

3. SWIVEL WHEEL MOUNTING ARRANGEMENT FOR TRAVEL BAG, Pen-I Chen

A Swivel wheel mounting arrangement includes two wheel mounts bilaterally fastened to the outside wall of the bottom panel of a travel bag to hold a respective pair of Swivel wheels, the wheel mounts each having a mounting frame fixedly fastened to the outside wall of the bottom panel of the travel bag, two protruded portions horizontally bilateral ally extended from an inner Side of the mounting frame, and two hollow posts respectively integral with the protruded portions, a reinforcing lining mounted on the inside wall of the bottom panel of the travel bag and fixedly fastened to the hollow posts of the mounting frame, and two reinforcing bars bilaterally connected between the wheel mounts and closely attached to the outside wall of the bottom panel of the travel bag, the reinforcing bars having two distal ends respectively coupled to the hollow posts of the mounting frames of the wheel mounts.

3.1 FIELD OF THE INVENTION

The present invention relates to travel bags and, more Specifically, to a Swivel wheel mounting arrangement for travel bag, which has reinforcing means to reinforce the strength of the bottom panel of the travel bag and, which fits travel bags of different sizes.

3.2 BACKGROUND OF THE INVENTION.

A variety of wheeled travel bags have been dis closed, and have appeared on the market. Regular wheeled travel bags commonly have a rectangular shape, and the wheels are installed in one side panel or the bottom panel. If the wheel mounts of the travel bag are An deformed and not in perfect alignment, the Swivel wheels of the travel bag cannot be Smoothly moved in Same direction. There is also known another Swivel wheel mounting arrangement according to the prior art in which four swivel wheels are installed in four corners of a wheel plate, which is in turn

4. CONCLUSION

The main motto of a company is to improve the production rate and quality of the products. The Company can be benefited with reduced marking time, less quality defects (regarding misalignment), reduced manpower for the marking purpose, increased the productivity rate, optimized process parameters, improved profits through cost saving method, increased customer satisfaction and increasing sales. It also helps in bringing more orders from the customers due to improved quality of the product as compared to other competitors. Make it responsible to effect process improvement and continuous enhancement of production to implement our rigorous quality standards.

5. REFERENCES

- [1]. HOLLOW WHEEL ASSEMBLY OF LUGGAGE Wei - Hung Lai , Taichung (TW) Appl . No . : 15 / 375 , 794 B60B 33 / 0042 (2013 . 01) ; B60B 33 / 0002(2013 . 01) ; B60B 33 / 0028 (2013 . 01) ; Jun . 14 , 2018
- [2]. METHOD FOR ATTACHING A CARRIER TO A PIECE OF ROLLING LUGGAGE Douglas Harland Murdoch , Santa Rosa , CA (US) ; Michael Allen Sturm , Redding , CA (US) CPC A45C 5 / 14 ; A45C 7 / 0045 ; A45C 13 / 30 Sep . 12 , 2017
- [3]. SWIVEL WHEEL MOUNTING ARRANGEMENT FOR TRAVEL BAG. Pen-I Chen , Pub. Date: Feb. 28, 2002

