

# Light Vehicle Parking by Stepney Wheel

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**Abstract:** When the time of car driving I need stand car at a parking so the short area that's reason car can't properly standing in parking areas so this mechanism to use the Stepney as a slider and move to the less space area for parking. Stepney additional wheel to back side of the vehicle is fit in sliding mechanism to moving end up lifting the rear wheels at a time of vehicle parking only three wheel is connected to the surface of the area front two wheels and rear only Stephanie wheel are connected. This parking mechanism is used like an uplifting of rear wheels and to change the rear wheels if any physical damage in wheels.

**Keywords:** Parking, Vehicles, Mechanism.

## 1. Introduction

In this mechanism use for Stepney wheel as a parking generally Stephanie is only stable and direct used for the damaged wheel but Hindustan mekanism Stepney wheel is stable in back of the vehicle with sliding and rack mechanism. This mechanism is one but two work are applicable first uplifting the real both wheels and second is angular parking.



## 2. Literature survey

As the name itself suggests, "On-street Parking" means the area allotted for Parking purpose at the sides of the roads. For efficiency in Parking system;

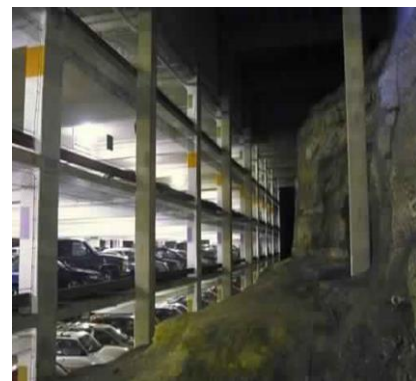
The vehicles are parked one behind the other. The Parking lot is designed as per the area required if Parallel Parking is

adopted. It has been surveyed that the area required for Parallel Parking is much lesser that required for Angular Parking. Therefore, more number of vehicles can be parked in this Parking System. For this reason, this Parking system is generally adopted.

The vehicles are parked at an angle. It may be a 30-degree angle or 45 degree. The vehicles can be easily reversed if parked at an angle. Hence, proving as an efficient Parking System in case of vehicular circulation.

The major drawback of "Angular Parking System" is that it requires larger space for parking than required for Parallel Parking. Hence this system is adopted where the space is available in plenty. The vehicles are parked at right angle to the road. It is an efficient system of Parking.

As the name suggests, Off street Parking means a Parking Area is designed adjacent to the Road or in a place or building which is not the part of the road.



## 3. Proposed work

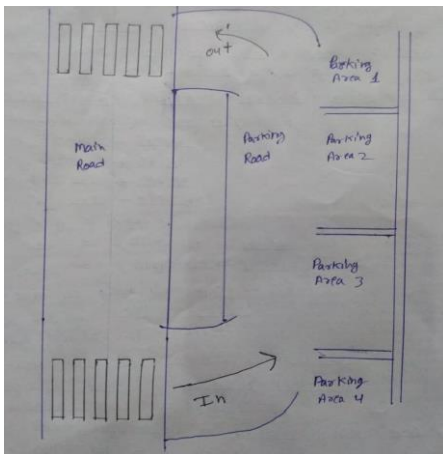
When a vehicle moves on the road, a place is required to erect the vehicle at the place where its journey ends, where the area where the car is parked is made for it. When that car is parked, then the area where the car is to be parked. We take the car diagonally there and then we take Stephanie wheel down so that both the rear wheel rises up and at that time only 3 wheel of that car is in contact with the ground. Both the wheels and the Stephanie wheel at the rear. The position of the stephanie wheel and the front wheel is at a distance of approximately 90 degrees, after which the wheel is driven by the motor so that the car that stands diagonally becomes a bit straight and it is inside its parking area Arrives.



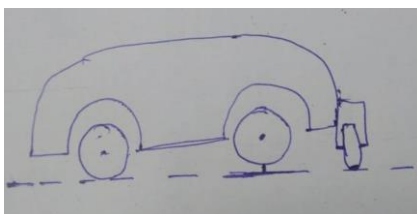
#### 4. Constructions

Stepney wheel is assemble with a motor for providing a rotational motion motor is assemble with link arm.

- The hydraulic cylinder is move the link arm up and down.
- The link arm is sliding with the sliding rack.
- The slider is fixed with the back surface of vehicle.



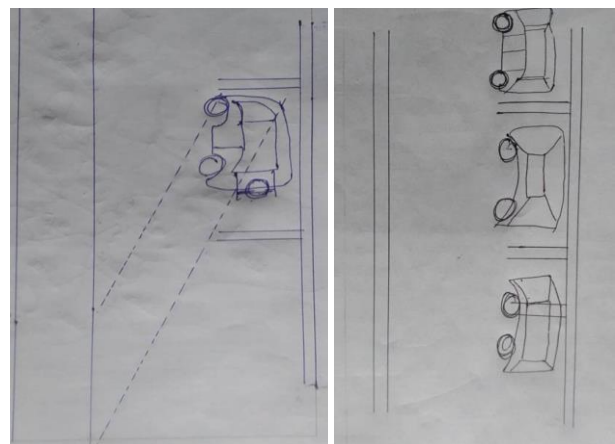
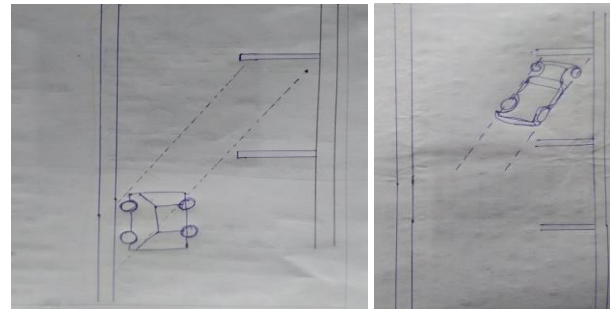
Before taking any measures for the betterment of conditions, data regarding availability of parking space, extent of its usage and parking demand is essential. It is also required to estimate the parking fares also. Parking surveys are intended to provide all this information. Since the duration of parking varies with different vehicles, several statistics are used to access the parking need.



#### 5. Mechanism used in research

- Sliding and rack motion
- This type of motion is used for the sliding motion in the Stepney wheel. The motion is start in wheel is up and down motion

- Angular displacement
- In this motion the Stepney wheel is move along 90 degree of rear wheel the distance travelled by the Stephanie wheel less circumference area.



#### 6. Conclusion

In this mechanism used for the vehicle parking and vehicle lifting so the vehicle consumes less area for the parking, it is very cheap and best mechanism for the parking, angular displacement of the rear wheel is secure and safe the parking for the vehicle. The solution for the parking requirements is the multi-level car parking system to maximize car parking capacity by utilizing vertical space, rather than expanding horizontally.

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