

EMERGENCY EVACUATION KIT

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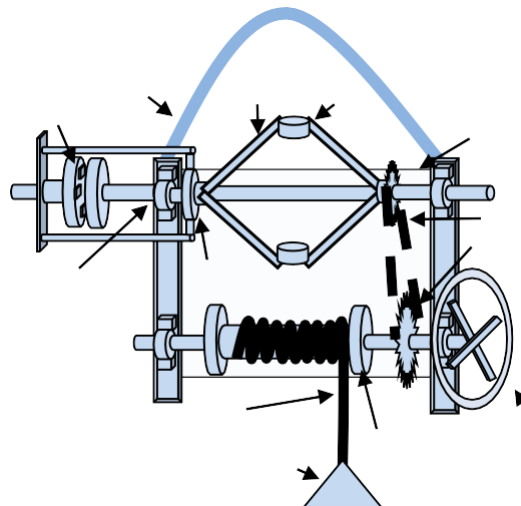
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Abstract: Emergency evacuation kit is a unique personal rescue device which uses an individual harness to help a user safely escape from an emergency situation in a multi-story building. As such, there are certain personal considerations that must be taken into account before a Sky Saver device is issued. Factors can include the user's height, weight, and physical infirmity among other issues. Prior to the fulfilment of any Sky Saver order, purchasers are required to complete a brief customer information form so that the suitability of the Sky Saver device can be determined. For this reason, any Sky Saver order will take up to twenty one (21) business days, from Sky Saver's receipt of the completed customer information form, to fulfil. In the event that Sky Saver, in its sole discretion, determines that a device cannot be used safely by a particular individual and cannot be issued, the order will promptly be cancelled. In the event that a device is developed that is potentially suitable for a previously declined individual, they will be contacted and informed of the new device.

Keywords: governor, rope, dead weight, chain sprocket and pedestal bearing.

I INTRODUCTION

Fires can cause devastating harm to property and even death to many people. The risk of being injured in a fire or becoming a fire casualty is higher for people with mental, physical and sensory disabilities. The excellent news is that deaths by fires are preventable provided that the person is educated on how to escape from a fire and equipped with devices like a fire alarm and a Sky Saver.



Everyone has a diminished capacity to react in a fire emergency so everyone needs to be careful. Some individuals would not want to change their lifestyle and are independent. This mind-set can cause you to overlook fire safety needs that are necessary. In some circumstances, disabled individuals might require the help of care providers to practice fire safety techniques. It

is strongly recommended that you choose a home on the ground floor or first floor of a structure, although you have the right to live where you choose. Additionally, it is advised to have the apartment near a fire exit to make the escape easier.

II OBJECTIVES

- To develop a constant going down speed reusable device
- To develop a device which requires no advance training
- To make a Product which works mechanically without the need for any outside power
- To develop a low cost device for multiple people

III LITERATURE REVIEW

[1] **Sumit Kumarsay** In the current investigation watt governor is modified such that it increases the controlling force. In modification the fly-ball is fixed on the lower arm at the small distance below from the point of intersection of arms. The analysis is carried out by mounting the fly ball at the various positions on the lower arm.

[2] **Ravindra Singh Rana** says we have done the Stress analysis on a particular configuration of governor assembly and then various materials are suggested on a theoretical basis. The stress concentration areas, which are most susceptible to fail, so to avoid failure we have to increase the strength in those areas and to achieve this diameter of the shaft should be increased near the base

IV METHODOLOGY

- In the current investigation watt governor is modified such that it increases the controlling force. In modification the fly-ball is fixed on the lower arm at the small distance below from the point of intersection of arms. The analysis is carried out by mounting the fly ball at the various positions on the lower arm.
- The displacement of the various elements of the SPINDLE from the base is also calculated and the graphs are plotted. Effect of the "WEIGHT OF THE ARMS" is the major area of concern for our study and all the calculations are done considering the weight of the arms.
- The objective of our investigation to identify the stress concentration areas, areas which are most susceptible to failure when governor is rotating about its axis, also the value of these stresses is measured.

V WORKING PRINCIPLE

When weight is pulled down, the rope tends to move the reel. Reel is connected to governor shaft by chain sprocket. As the speed increases the dead weight on porter governor tends to move outwards which applies the frictional brake and reduces the speed when the speed reaches reduces the dead weight comes inside and releases the brake

Using the above principle, we are using the steering column as lever to get the mechanical advantage by using the pivot and use the smaller distance from the fulcrum to connect the crank link of the wheel to propel the wheel to effect the drive.

VII CONCLUSION

The developed prototype exhibits the expected results. Further modifications and working limitations will put this work in the main league of use. This concept saves time & energy which leads to efficient working. This further line should be modeled using equations and an experimental agreement. The product will act as a pioneer in firefighting systems

VI APPLICATION

1. Life of person will be saved.
2. Can be reused by multiple persons.

3. Save fire brigade person life too.
4. It is used in multi store building to save life of persons when required.
5. It is also used in construction site for up-lifting the raw material.

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