

BED WITH ATTACHED COMMUNE FOR PATIENT AND ELDER

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Abstract— Aim of this project is to develop a mechanical system for washing urination or defecation of patients in bed. Automatic discharge processing system, can nursing urination or defecation of patients in bed. when the patient excretes, to press the button can perceive automatically, pull out the excrement and smash into pieces, and then store them into dirtily bucket. Then the nozzles spray clean water to clean patient private part and excrement collection bucket automatically.

I. INTRODUCTION

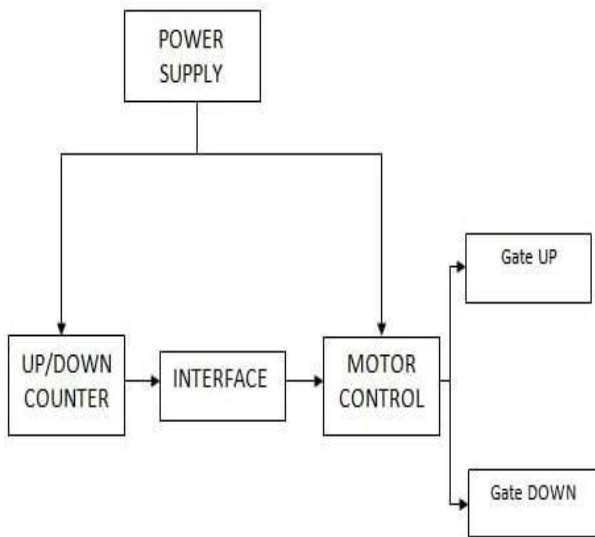
A cot is a generally for rest or sleeping while staying in the same placed. cot to develop a better toileting aid for bedridden patients to replace conventional incontinence products such as absorbent products, indwelling urinary catheters, and bedpans, although without much success. Automatic urine and faeces disposal systems that detect, transport, and store urine and faeces temporarily for future disposal have been developed. For better excretion care, we developed a toilet integrated medical bed that is easy to use for both patients and carers. The toilet basin was incorporated onto the pelvis plate of the bed, and the fluid waste in the toilet basin was collected into a plastic bag through a curved waste storage tube attached to the toilet basin. He was able to urinate and defaecate without the help of a career. Independent urination and defaecation helped restore his dignity considerably. This medical bed with an embedded toilet could be a promising solution for excretion care of bedridden patients.

II .EXISTING SYSTEM Vs PROPOSED SYSTEM

This facility is available only in hospital. It consume more manpower. We proposed system for paralyzed patient for private use. We over come with less Manpower

III. METHODOLOGY

While making cot (5ft) for commode use, first part (1ft) steel designed toward up direction and same procedure followed as downward direction. Mid part (3ft) fitted horizontally. Button turn on to run the motor to push back used enable potions to is it and relax, the seat can adjust 40 to 45 through rack and pinion gear. For commode use, moving plate, move downward through lead commode use, moving plate, moving downward through leads screw by switching on the push button. commode move centre from and it has separate button to on after the usage of patient, wastes collected through the pipe for the disposal. And commode movie through towards the original position and moving plate, moves upward to its initial position



III. DESIGN OF Bed With Attached Commode For Patient And Elders

The Block diagram of „,„design of bed with attached commode for patient and elders““ shows above. Include the following blocks in this diagram

- D C MOTOR
- BATTERY
- FRAME
- LEAD SCREW
- RACK AND PINION GEAR
- SWITCH AND WIRE

IV. DC MOTOR

The electrical motor is an instrument, which converts electrical energy into mechanical energy. According to faraday’s law of Electromagnetic induction, when a current carrying conductor is placed in a magnetic field, it experiences a mechanical force whose direction is given by Fleming’s left hand rule. Constructional a dc generator and a dc motor are identical. The same dc machine can be used as a generator or as a motor. When a generator is in operation, it is driven mechanically and develops a voltage.



Fig.DC Motor

V .BATTERY

Batteries are used in various things that we use in our house. Batteries are used to power things like remote controls, torches, wall clocks, flashlights, hearing aids, weight scales, etc. Batteries seem to be the only technically and economically available storage means. Since both the photo-voltaic system and batteries are high in capital costs. It is necessary that the overall system be optimized with respect to available energy and local demand pattern. To be economically attractive the storage of solar electricity requires a battery with a particular combination of properties.

VI. A LEAD SCREW

A lead screw is sometimes referred to as a power screw or a translation screw. They are used within motion control devices to transform rotary or turning movements into linear movements.

A screw rod, also known as a stud, is a relatively long rod that is threaded on both ends; the thread may extend along the complete length of the rod. They are designed to be used in tension. Threaded rod in bar stock form is often called all thread. The screw is really a twisted inclined plane. ...

A screw can also act to hold things together in some cases. Some examples of the uses of a screw are in a jar lid, a drill, a bolt, a light bulb, faucets, bottle caps and ball point pens.

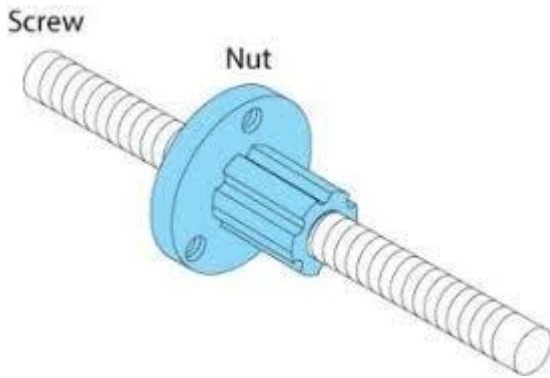


Fig: A LEAD SCREW

VII. A RACK AND PINION

A rack and pinion is a type of linear actuator comprises circular gear (the pinion) engaging a linear gear (the rack), which operate to translate rotational motion into linear motion. Driving the pinion into rotation causes the rack to be driven linearly. Driving the rack linearly will cause the pinion to be driven into a rotation. A rack and pinion drive can use both straight and helical gears. Though some suggest Helical gears are noted for “quieter” operation, there is no science to support this theory. Helical racks while being more affordable, have proven to increase side torque on the datums, increasing operating temperature leading to premature wear. Straight racks require a lower driving force and offer increased torque and speed per percentage of gear ratio which allows lower operating temperature and lessens viscal friction and energy use. The maximum force that can be transmitted in a rack and pinion mechanism is determined by the tooth pitch and the size of the pinion as well as the gear ratio

VIII. COMMODE

A toilet is a piece of sanitary hardware that collects human urine and feces, and sometimes toilet paper, usually for disposal. Flush toilets use water, while dry or non-flush toilets do not. They can be designed for a sitting position popular in Europe and North America with a toilet seat, with additional considerations for those with disabilities, or for a squatting posture more popular in Asia (see squat toilet). In urban areas, flush toilets are usually connected to a sewer system that leads to septic tanks in isolated areas. The waste is known as blackwater and the combined effluent including

other sources is sewage. Dry toilets are connected to a pit, removable container, composting chamber, or other storage and treatment device, including urine diversion with a urinediverting toilet.

IX. CONCLUSION

The water tank cleaner was used to clean the water tanks by using rotating brushes. This method was more effective and safe than the conventional methods. This method is capable to clean water tanks within less time and human efforts.

X. EXPERIMENTAL RESULT



XI. CONCLUSION

The bed with attached commode was used to clean the human urine and by using rotating brushes. This method was more effective and safer than the conventional methods. This method is capable to clean water tanks within less time and human efforts. These beds are integrated solutions for patient care, assistance and monitoring, based on a comprehensive, multidisciplinary design approach. Research in this field is critical in a context of global ageing, and powered by a surge in opportunities for accessibility solutions. Smart beds, seamlessly integrated into the

healthcare system, have a unique opportunity in enabling more efficient efforts for caregivers, and more responsive environments for patients

XII. REFERENCES

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