

Mount Gadget - For Skyward Building And Conveyance

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Abstract

The people in hill stations as ASSAM and other mountain places are struggling to build their Urinals / Restrooms. It is difficult for people to carry bricks concrete, cement and other building materials to the top of the hill. Accordingly, they need a support, which may help them to import and construct on elevated areas. This is about a tool which has a mechanism to help people for construction of room, cottages and restrooms by carrying all other requirements for erective use, the required materials can be carried with the help the model and even in bad weather construction can

be continued. It can escalate people easily onto the uneven or even surfaces (friction less) with the claw support in its paw. The model can be widely used for transportation of various building and non building constructive materials. The main theme of project is to make things easier for people by reducing maximum manual work in construction by resting their back for support. The output of the project is to finish work in less time with no harm to people. This model is also used as storage room for small appliances and to put glass sheets on the framework, It is also helpful to paint buildings, finishing design to the elevations and means of transport to a limited distance.

Key Words : Construction, Mount gadget, Goods carrier, Hilly area, Transportation.

1 Introduction

This model has dual role to carry people and constructive materials to the site of construction in the hilly areas and other uses involve fixing of small to medium size thick glass tiles in the outer portion of buildings. When coming to the model 1 working there is a pulley wire system on either side of the model which connects one of frontal and hind limb of the model. A trigger is fixed to the handle which helps the claws to come out of the paw. The following mechanism is used for the climbing the elevated surfaces.

As we go against the gravity when climbing the hills, we have a seat on the models back on which we can sit to prevent ourselves from falling backward. The seat is strongly fixed with a joint in which helps the seat to stay still in the perpendicular position to the model. When the seat locks there we can rest our back. The seat has a belt for safety as a support.

We can move ourselves to the left and right direction with the help of the rod which is fixed in the fore part of the model. The same rod is fixed to the common point where people rest their legs while climbing up. The to and fro movement of the rod with the help of the feet makes us to move towards any direction on the hills or even on the plane surfaces like roads.

The model have place to carry constructive materials in it, which

prevents the over consumption of manpower. There is no need for the people to carry the materials needed on their back, they can just dump the appliances into abdominal part of the model. Things inside the model stay still in one place which helps to prevent the backward force on the model.

When people work in hilly regions they can cover themselves with an umbrella type cover is fixed to the model when people want to use it and can be removed if they don't want to use. The umbrella cover is helpful for the people to even work in seasons with bad forecast. So, it stays as a protection for the people also as safety measure. If people want to come down from the top of the hill they can safely slide themselves down in order to land down carefully people can just slide down without using the same climbing principal as before. Brakes can be applied. The sliding support is not completely fixed it has small gaps in it which are attached to strong screws. The long metal sliding is supported with strong rod and covered with a belt to have comfortable travel from top to bottom.

In the case of model **2** people can use this model for long glass sheets which now-a-days widely used in covering building surfaces. The vacuum support to the model helps us the model to crawl all over the building and fix the sheets in the sequential order and it completes in less time. This model works with help of friction and vacuum. By using the support we can even use the model for painting buildings and paint beautiful designs on the building surfaces. This principal is only used in plane building surfaces.

As we climb the onto the plane surfaces to work at the particular place we can just raise our seat towards the surface of the building and stand in that place and start working at that place where people want to work. The model has this type of mechanism to make the work finish smoothly.

For working on the building people need proper support from not falling off from the model on which we stand. So, the user can have one belt support which catch holds the user tightly surrounding his back part. This is one of the safety support for the user.

The person needs small appliances which are helpful in fitting the glass sheets and also for tightening them. So, the person should have some place to carry those things. The model have small stor-

age room in which the individual can store the things and make use of the whenever he wants. We can close and open the storage part from preventing the small thing from falling off the model. People can manually use this model to complete the glass finishing work in the peripheral structures

The model 3 is used for travelling short distances. The motion of hands and legs play an important role in the movement of the model.

2 Description of the model

2.1 Motion of the model onto the up hills

The model 1 has a mechanism to help us reach on to top on frictional surfaces or uneven surface. With the help of the **claws** in its **paw** which acts as a grip to carry heavy loads. Strong materials are used to make the claws since it has to have a great grip because the whole point of the model is to take us on to the up hills without any of our effort. All we have to do is pull the **handles** on the left and right side of the model and this handles, when we pull the handle on the right hand side in the upward direction the model lifts one fore and one hind limb of one sides and when we again leave handle the model takes one step further the process should be done on the left side of the model but not at a time, once we pull the handle on right side take step and leave our step there and can again lift the left part in this way can move further. Both the handles are fixed with a strong **wire** which is connected to the loop of wire passed through 6 **pulleys** on the right and left side of the model, right side in the sense one of the fore and hind limb of the model and the same on the left side. There are 8 **joints** fixed to the limbs of the model each limb has 2 joints, first joint upper is fixed on the end of the limb which is little bigger in size and the second joint is fixed to knee part of the limb this joint is smaller in size.

2.1.1 Claws

A sharp, usually curved, nail on the foot of an animal which is used for support in climbing inclined areas.

2.1.2 Paw

The foot of an animal having which is large and rough.

2.1.3 Handles

A part of an object designed for holding, moving or carrying object easily.

2.1.4 Wire

One of the metal form which is converted into a thin flexible thread.

2.1.5 Pulley

It is a machine consisting of a wheel over which a pulled rope or chain is placed which changes the direction of the pull and used for lifting a load.

2.1.6 Joints

It is a connection point of two thing and which also helpful in movement of that particular part.

2.2 The movement of trigger system, bending of the rod and the claw mechanism

So, now let me explain the claw mechanism as a support for climbing. As mentioned above the handle which we hold consists of a **trigger** which helps the claw system to come out when needed. So, the paws of the model have set of holes to let the claws come out from the paw, total pulley system is covered by a coating of wood / iron (corrosion less if iron is used). This coating /cover are attached to a strong rod of small thickness and the rod consists of a 3 joints, first one near the pressing area the second joint plays an important role which helps in bending the rod when taking steps further the third joint is fixed to the connecting area of the trigger cover system and the rod. To the exact middle of the rod just below the joint there is thick rod which when triggered stretches vertically but again compresses. As the rod is bent when compressed the total claw system is pulled into the model with this the claws also go

into the limb from which they are brought out when we the model walks further. There is **piston** principle used here because as we trigger the claws boost out from the holes / openings provided on the paw for the claws to come out and gets its proper grip to climb on. This is how we use this model to go up hills which have uneven surfaces.

2.2.1 Trigger

A pressing mechanism which helps to shoot out things.

2.2.2 Piston

A short solid piece of metal which is used in up and down movement.

2.3 The openings from where the for pulley, rod fixed to the trigger and hind pulley wire system come out

The pulley wire and the trigger system come out of the model from a small rectangular opening on the upper surface of the model to the right and left side. The first opening is near to the fore upper surface part of the model from which the front wire fixed to the pulley wire system in the fore limb of the model comes out, the middle opening is for the rod of trigger system and the third opening is on the hind upper surface part from which the back wire fixed to the pulley wire system in the hind limb part. Finally, the two wires which are coming from front and behind are connected to one common handle which helps in the movement of the model to move forward, also the trigger is fixed in the handle part.

2.4 The position of seat on the model

On our sitting place we have some support which we can rest our self back while climbing up. The sitting on resting on back have waist belt to support our self to prevent from falling off. Here we use car seat belt mechanism.

2.5 Abdominal cabin

There is a big and thick closed **capsule** shaped cover inside the abdominal part this capsule is tightly fixed with strong glue and screws for extra support the screws are fixed only to the inner upper surface of the model and the bottom part of the capsule is merged with inner lower abdominal part. The capsule does not disturb the triggering mechanism because the trigger systems on both sides are fixed at extreme ends of the model. The capsule is divided into 2 horizontal partitions where in the upper region people can dump all the constructive materials which are needed and the lower region is for the sliding support, the upper part has two walls on the first and last ends the horizontal support to the first end of support there is a **hook** fixed to it all the constructive materials are stored in a bag and connected to the hook of the first wall through a strong belt which connects the wall hook and the back hook. While going against gravity the bag may fall backward to prevent this, the hook system is introduced.

2.5.1 Capsule

A small case or container, especially a round or cylindrical shape.

2.5.2 Hook

A piece of metal or other hard material curved or bent back at an angle, for catching hold of hanging things.

2.6 Steering mechanism in model

The steering mechanism works in this model as user of the model can rest legs on the support provided for feet. The connecting rod for the support is internally fixed to the fore part of the model. When we move our legs to and fro we can divert toward right or left.

2.7 Umbrella cover

When constructing shelters in hill places, people have a transparent glass fibre which covers from top of us as umbrella. It starts all

over from extreme back part i.e. behind the seat of the model and ends near the face part of the upper jaw of the model. The whole umbrella can be folded as it has joints as a connector from one part to another, there is a socket this socket has strong support on which the cover above has depression which is fixed to the support. The depressions have **ridges** in it and the end of umbrella cover have **grooves** at the end point of the cover this umbrella cover. This umbrella cover is mainly used to cover ourselves as a protection and also can even work in bad weather conditions.

2.7.1 Ridges

A long narrow raised places on the surface especially on mountains.

2.7.2 Grooves

A long narrow depression places on mountain surfaces.

2.8 Sliding support

While coming down after we leave the appliances which we carry on top. We can go down with help after sliding system which is folded inside the abdomen of the model. When we press one button the folded rectangular long metal support which is covered with strong thick black belt of 15cm length and is of thickness 4cm, the belt has good grip which helps the person to be comfortable while coming down, the sliding support comes out from the abdomen part the sliding support which comes out is fixed with a rod inside the rod has 3 inner rods and inside the rods there are 3 strong springs and to the end of each rod there is joint which helps when in folding the support back and again placing it in the abdominal part when we are not using and its the support of the model to stay still while sliding, the rod thickness is great and is made of strong material of iron / metal, because it has to bear the weight of the person who is sitting on its back we have handle to the either side of the face of the model which have break system same as two wheelers which help as to slow down the speed when we come down. The break wire is brought to the end of the sliding support from under the model which to have some stop blade at the end of the support

which help us to slow down the down speed. In this way we go up and come down carrying things easily.

2.9 The vacuum belt

The model 2 does not have limbs. It only has a strong vacuum belt which consists of strong vacuum grips on the belt is covered on the long rectangular metal support, same as the sliding support principal, but in this model the rolling belt is divided in the upper and lower part both the parts are connected with a strong joint. There will be no much gap between both the parts. Then the joint is fixed with a strong rod which has suspension in it and when coming to the movement of the belt further, there is a rod coming the neck part of the model, then the rod extends to the either sides. When coming to right side of the extended rod, that rod is bent perpendicularly towards belt then again that rod is divided into two rods extending a little further down toward belt, then between those two rods a wheel of limited thickness is fixed. Then from the right of the wheel there comes a handle for us to catch and can turn it in the clockwise or in anti-clockwise direction, if turned clockwise it moves forward and backward if turned anti-clockwise and with the help of the joint between the upper and lower part of the vacuum belt. In this case people can move can the model with the help of the to and fro movement of our feet, the feet support on which we rest our legs is fixed to the rod connecting the two tires and from that joint another L shaped rod is fixed. One end of the rod is fixed to the joint and the other end is strongly fixed to the plane rectangular rolling support. The total fixation in the fore part is helpful for the constant working of the model. The person who is sitting on this model has strong belt kept on him and that belt is fixed to a strong thick wire which is left from the top of the building and that wire is fixed strongly on the top, with this support user can roam all over the building and complete the glass fixing time and also painting the buildings within no time.

2.10 Adjustable seat in sector shape

When the person reaches the point where he should work, one thick rotator rod which support for us to catch which is fixed to the hind

part of the model this rod is again fixed to the thick rod, the thick rod is just placed below the seat. The upper surface has whole on it through which the thick rod comes out. This rod has suspension, inside the suspension there is a strong spring fixed, for the spring to come out the rotator rod should be turned clockwise, during this process firstly the suspension comes out from the thick rod when the suspensions reaches its maximum the spring comes out and lets the user to go nearer to the plain surface in 60o angle to the plain surface then user can undo the belt, then he can stand freely and again belt himself from the belts coming from the bottom surface of the model in this way person can complete his work easily.

2.11 The belt and buckle system

So, as the person can go nearer to the surface the user can pull out one strong belt which is brought from the lower abdominal part of the model which have small steel gateway through which the belt can come to the top, the belt which passes from the steel gateway is punched with bolts to prevent the movement of the belt. Then when we full the belt to fix it around us the belt is tightened in such a way that a thick X shaped buckle is behind us that support consists of 4 buckles the 1st buckle is faced to the north west, the 2nd buckle towards north east, the 3rd buckle towards south west and finally the 4th buckle towards south east directions respectively. Now in the belt case there are four belts two in the fore part and the next two are behind so now the belts from the fore and hind parts are brought from the inner up side of the model and can be fixed in the buckle provided, when the user completes his works in that particular place he can unbuckle the belts and again can sit down on the seat and handle the model to proceed further and can continue the work.

2.12 Small storage room in mouth part

There is a small storage room in the mouth part of the model where we can store small appliances useful for the fitting use of glass sheets on the buildings or other fixations on the surface of the buildings. There is a small thin rod to the right side of the face of the model which helps in closing and opening of mouth where we store the

things like screws, spanners bolts, nails etc in the oral cavity. Here there will be a small sized **jack screw** (A jack screw is a screw which helps to lift heavy things by rotating a rod which helps in the up and down movement of the screw, such as cars, trucks for their lower repair) fixed at the end of the mouth the jack screw is covered with a small wall which is helpful in preventing the small materials to go behind the jack screw which is again difficult for the user in picking the things. The model **3** is used for travelling short distances on roads, from our house to the house on the next road or to any shops it is an exercise for people. It has a little bit of grip on its paw as it is used to carry ourselves to inclined roads. It has friction and it is easier in going so. It has the same internal mechanism as the **1st** model, but excluding the sliding support in the abdominal cavity and the claw system. Here we get the whole place in the abdominal cabin for carry things and also have the common principal of both the models in having the small storage room in the mouth part. We can make this model to run by the fast pulling of the handle. We can slow ourselves by slowing down the handle pull.

3 Conclusion

In hill stations, ASSAM and other mountain places the *Tri- Tasking Gadget* with a wide application would be useful to carry required material to construct rooms, cottages, restrooms, storage room to store small appliances and for travelling short distances. This model would replace manual work and people would feel comfortable working with multi task model.

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