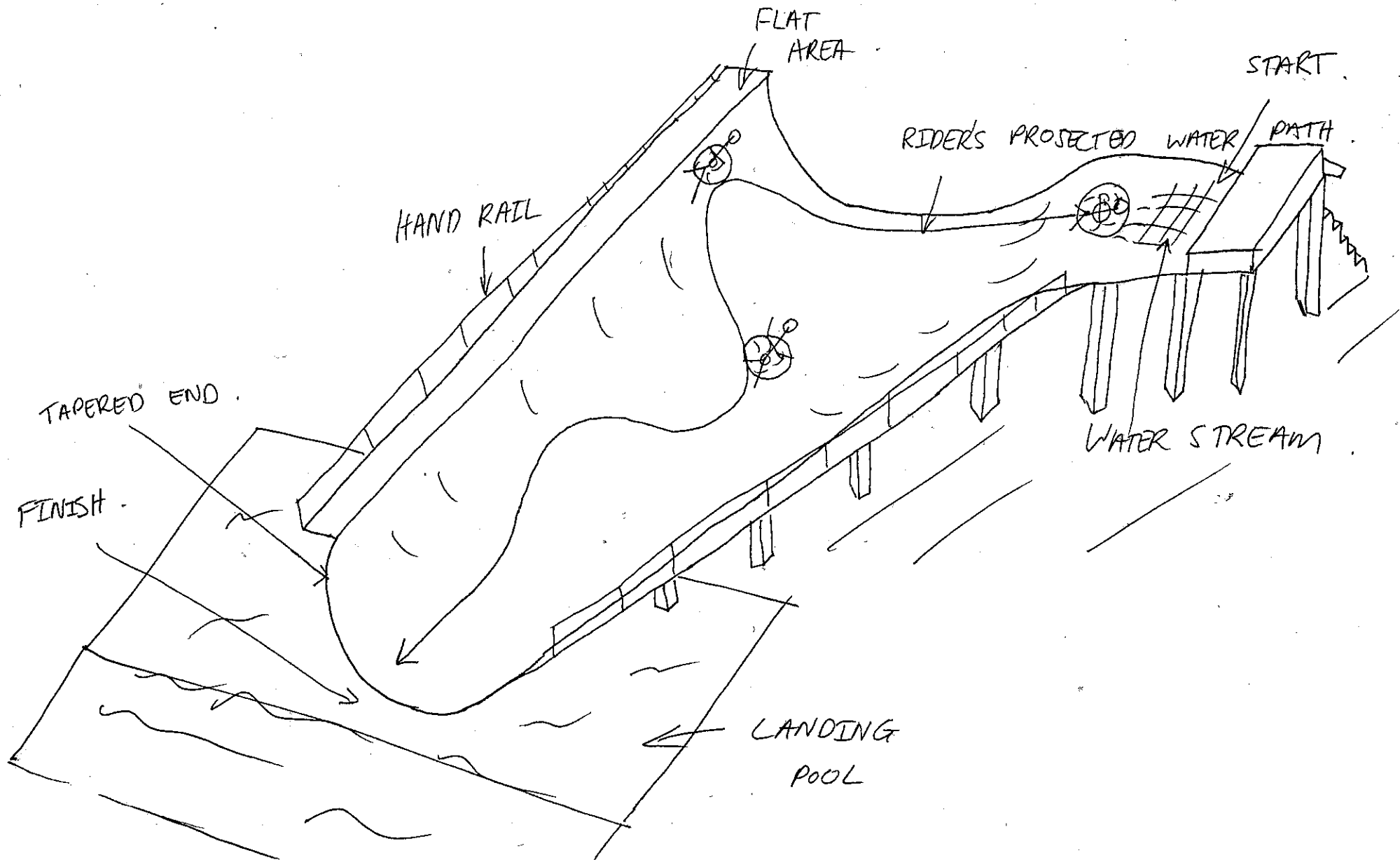


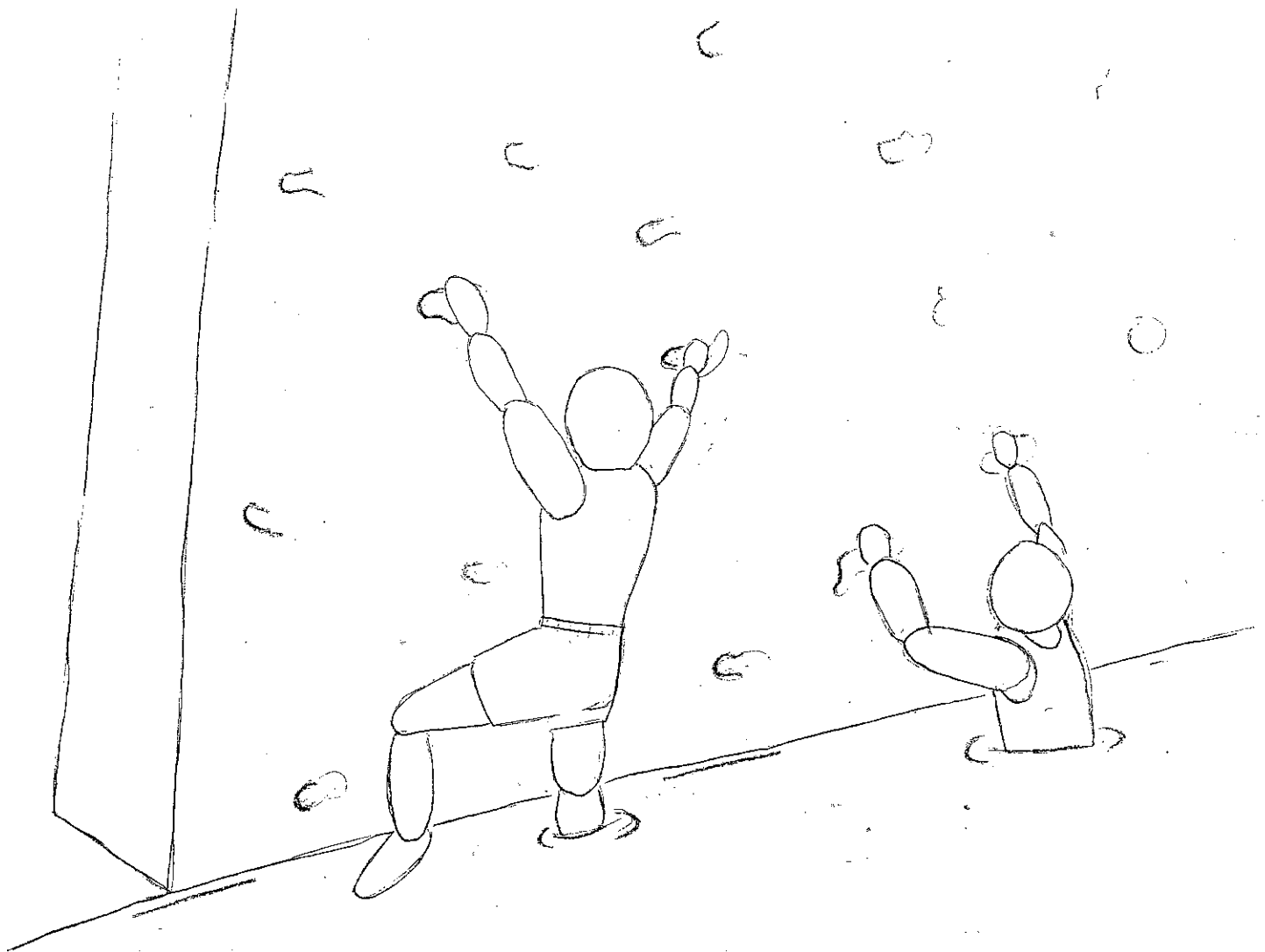
# Pool Toys

Concept Sketches from  
Previous years

# HALF PIPE SLIDE



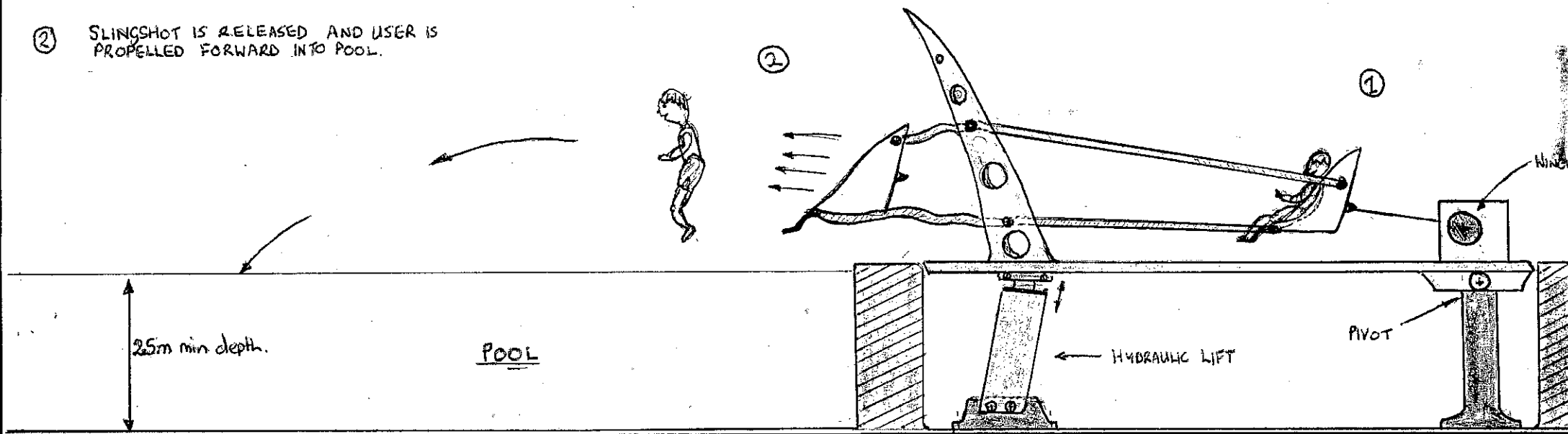
Concept Sketch



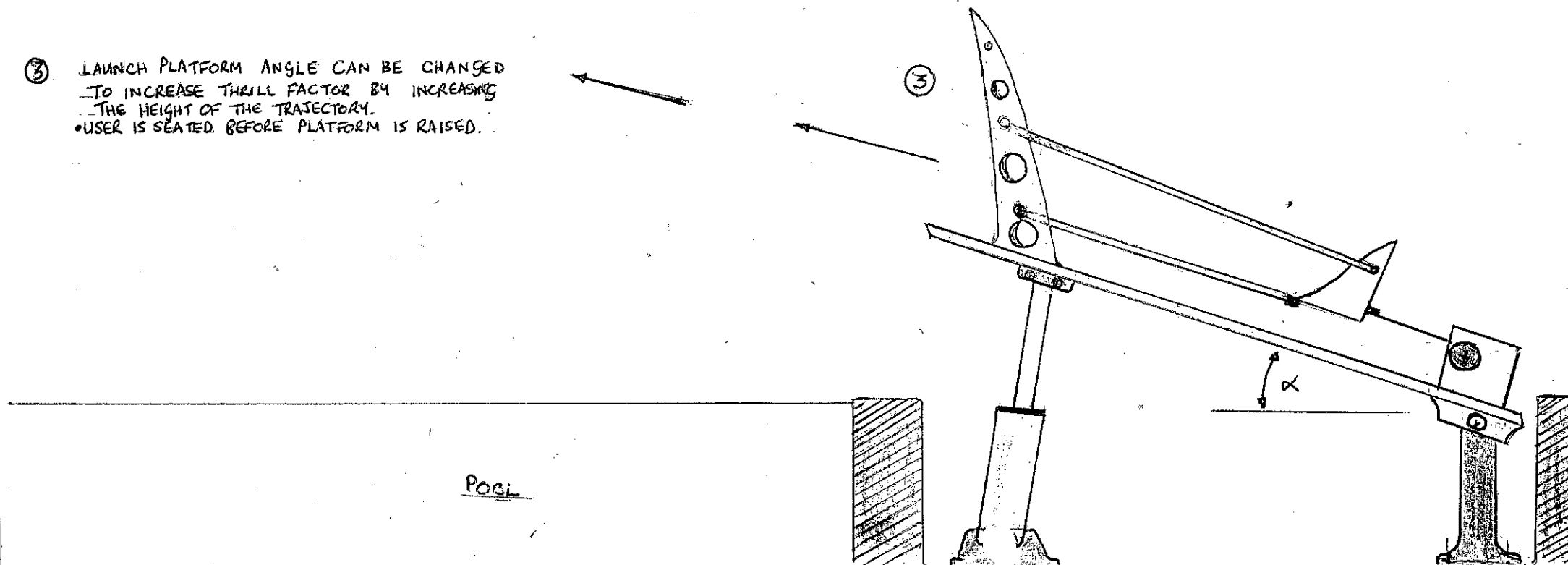
Pool climbing unit

① USER IS SEATED IN LAUNCH CHAIR WHEN SLINGSHOT IS STRETCHED TO DESIRED POSITION

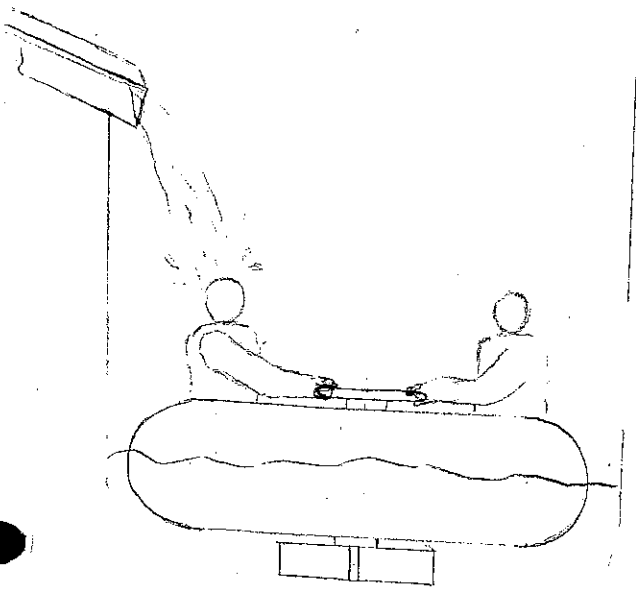
② SLINGSHOT IS RELEASED AND USER IS PROPELLED FORWARD INTO POOL.



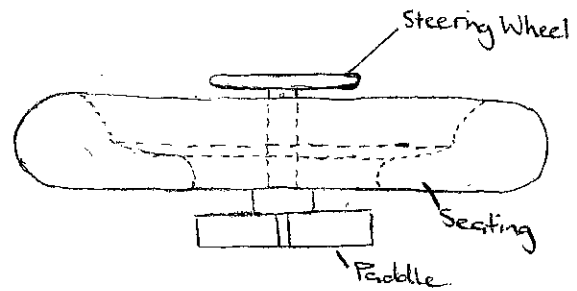
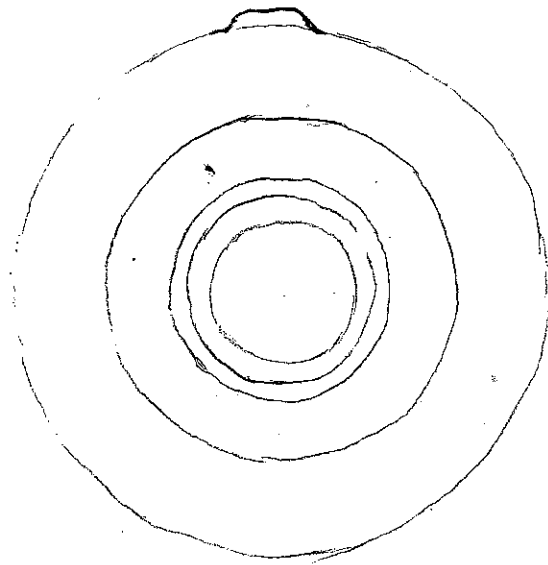
③ LAUNCH PLATFORM ANGLE CAN BE CHANGED TO INCREASE THRILL FACTOR BY INCREASING THE HEIGHT OF THE TRAJECTORY.  
• USER IS SEATED BEFORE PLATFORM IS RAISED.



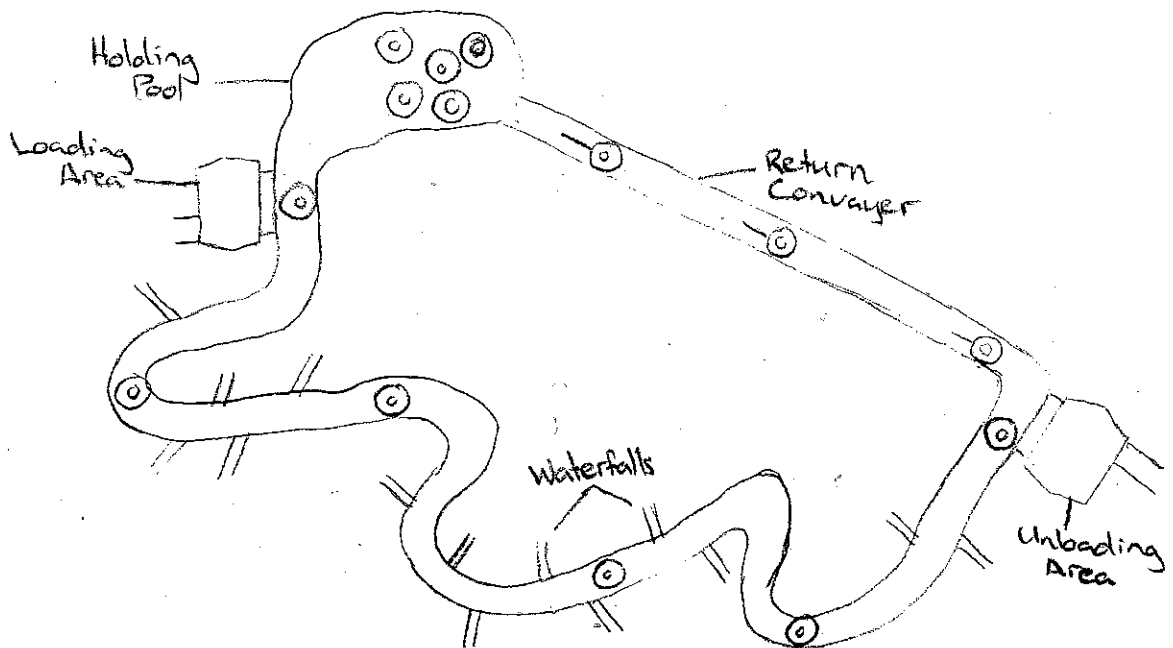
# ILLUSTRATIONS



View of Raft Travelling Down River.



Plan and Elevation of Raft.



Impression of River Showing Features.

# **The AquaPuzzle**

## **What the concept is**

Called the AquaPuzzle, it is designed to be a new major item. It is a decorative and attractive addition to any swimming complex. The feature is entertaining, educational and safe for children.

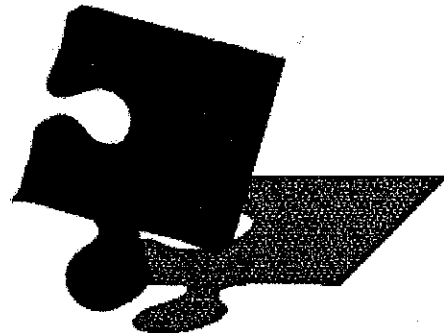
## **How it works**

The AquaPuzzle is designed to be situated at the bottom of an existing swimming pool. The puzzle pieces are made from high-density foam, and will float on water. When a child dives into the pool and places a puzzle piece near the bottom, it sticks in place. Each piece has been impregnated with iron filings, which are magnetic. The bottom of the pool has a series of electromagnets installed under it, which attract the puzzle pieces.

Once the puzzle has been completed, the press of a button will switch the electromagnets off, allowing the puzzle pieces to float back to the surface.

## **Special benefits, features and advantages**

- Because of the safe design of the AquaPuzzle, no extra adult supervision is required.
- The device teaches children underwater skills such as diving, swimming with their eyes open, holding their breath underwater and working as a team.
- Children between the ages of 10 - 14 are particularly adventurous and boisterous. For this reason the item must be safe and "idiot-proof". The Aqua Puzzle was designed with this in mind, and the puzzle pieces are designed to be robust enough to handle a substantial flexing and shock loading (as a result of being thrown around the pool).
- As the puzzle pieces are interchangeable, new puzzle pieces could be made up for the changing holiday themes of the pool. This would help to freshen up the atmosphere and encourage children to involve themselves in making the puzzle more than once.



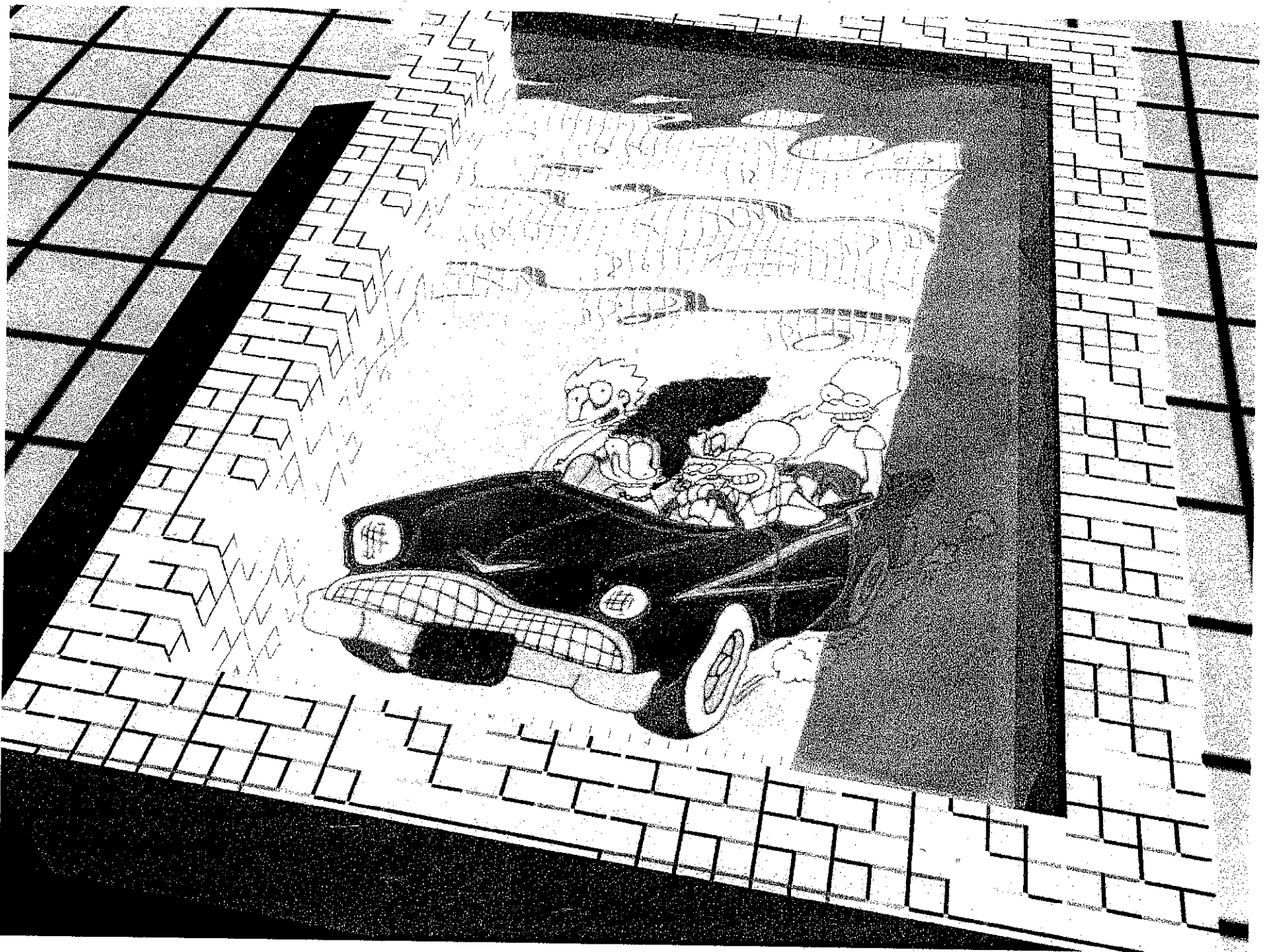
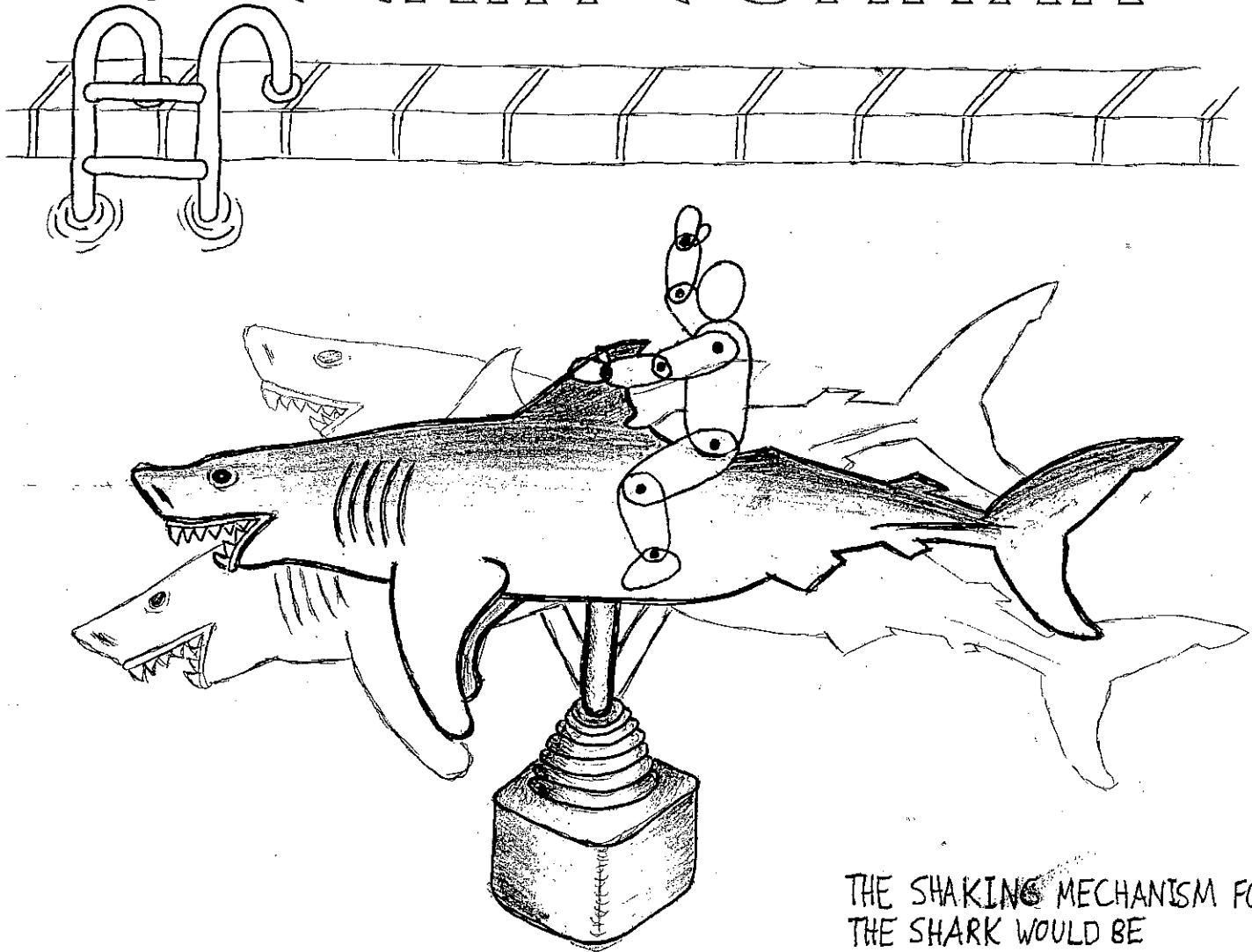


Fig 1.0 The AquaPuzzle - conceptual representation

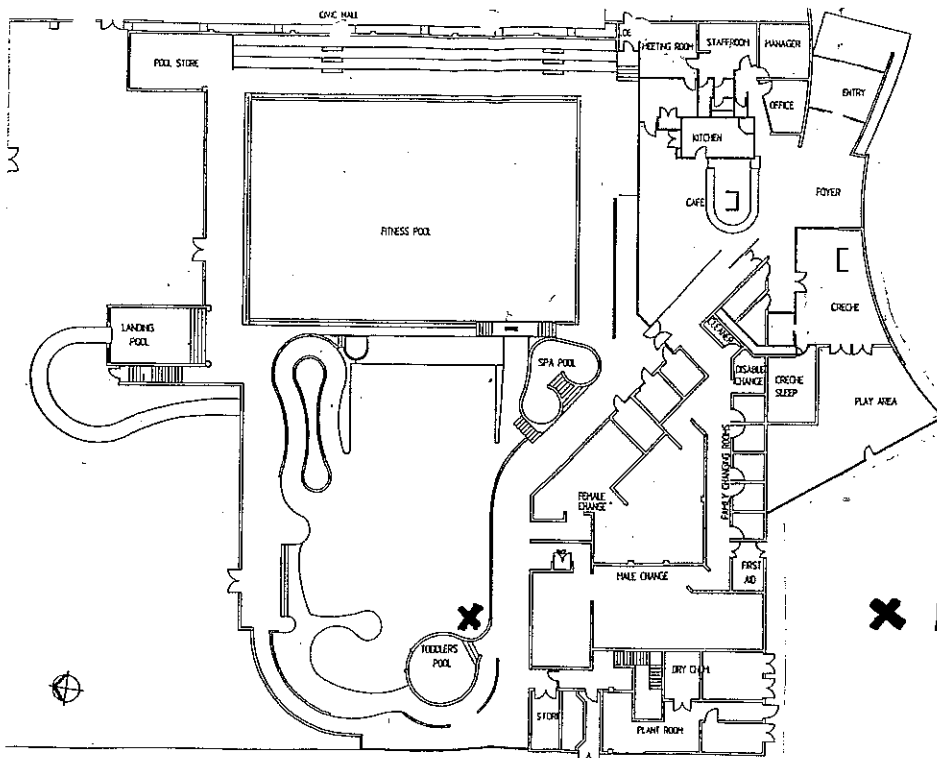
# BUCKING SHARK



THE SHAKING MECHANISM FOR THE SHARK WOULD BE HYDRAULICALLY CONTROLLED.

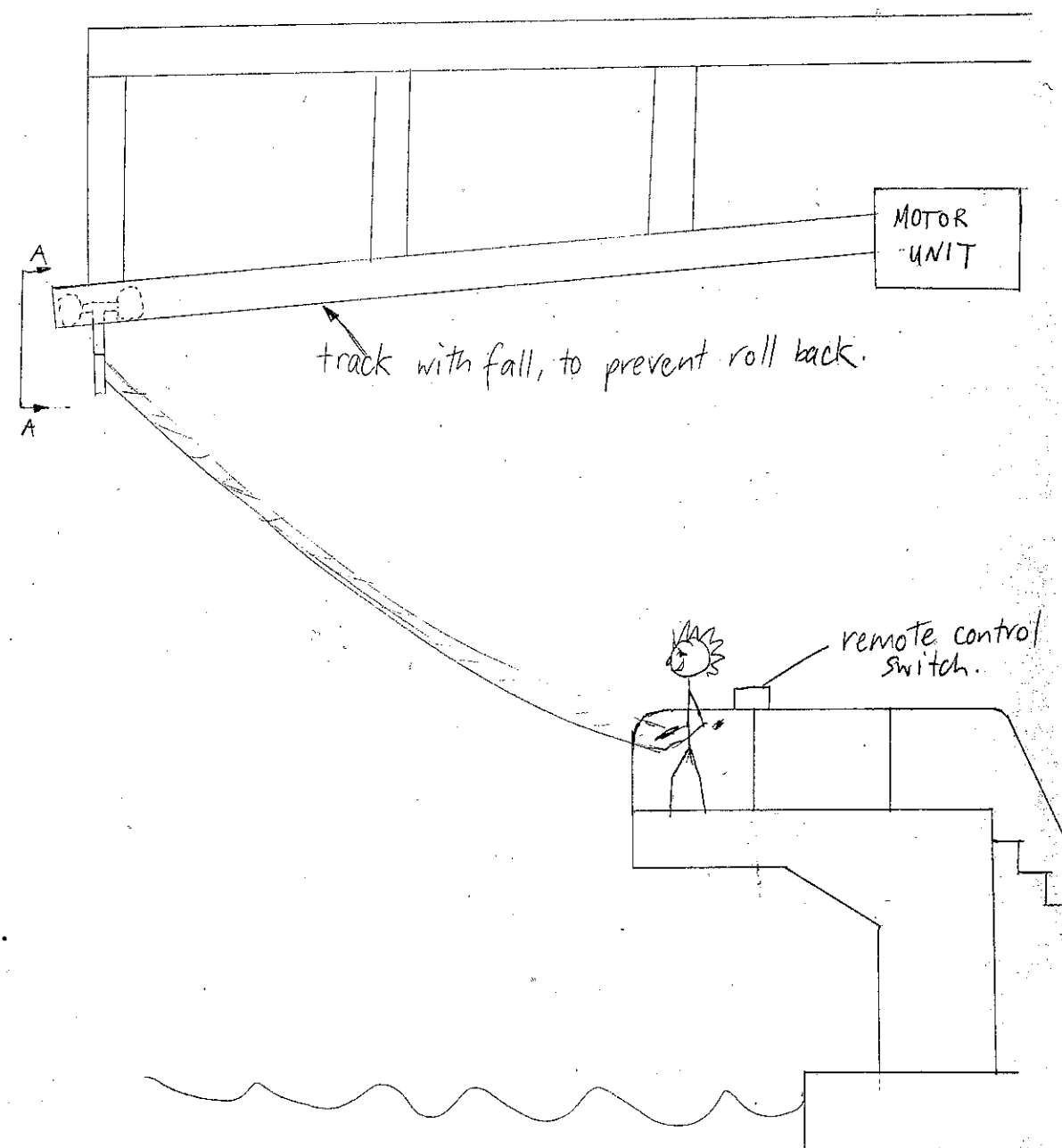
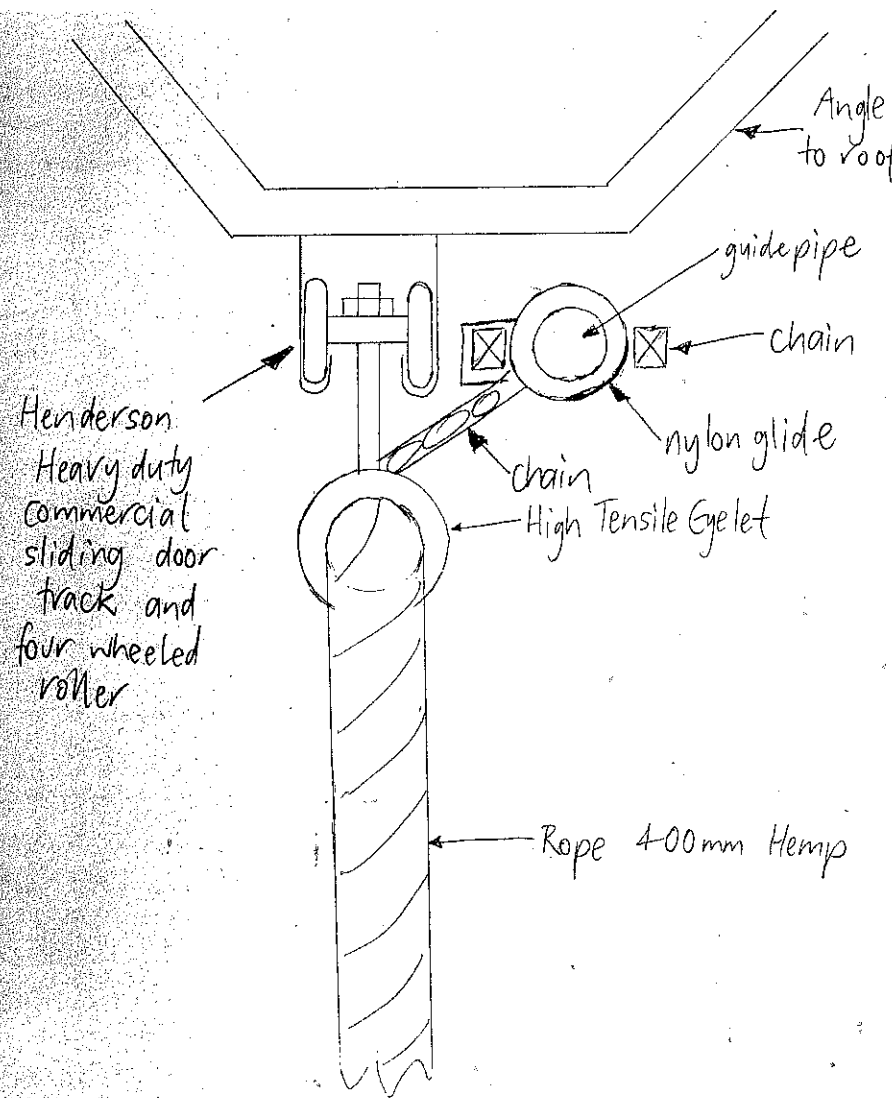
THE SEAT IS PRESSURE SENSITIVE SO IT WOULD NOT GO UNLESS SOMEONE IS SITTING ON IT.

THE SHAKING SPEED WOULD START OFF SLOWLY AND THEN INCREASE TO IT'S MAXIMUM SPEED.

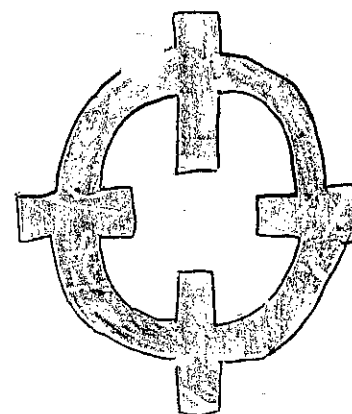
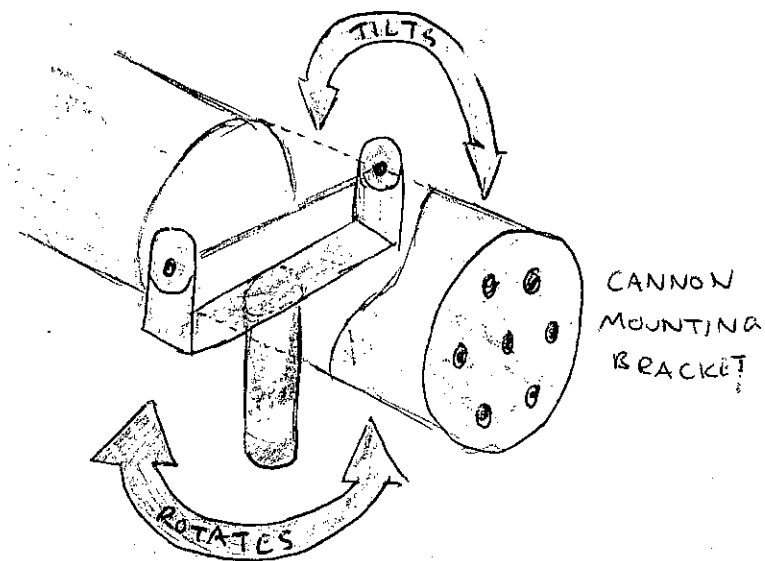


**X POSSIBLE LOCATION**

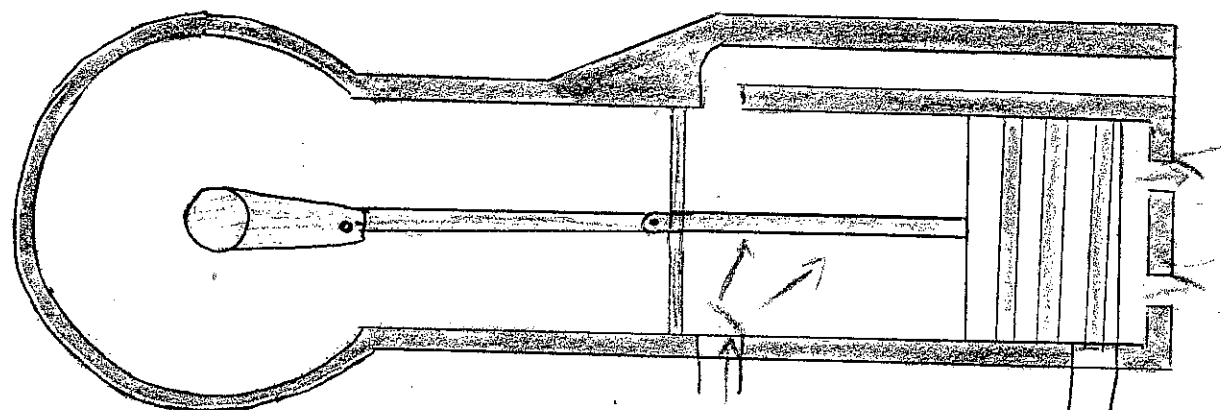




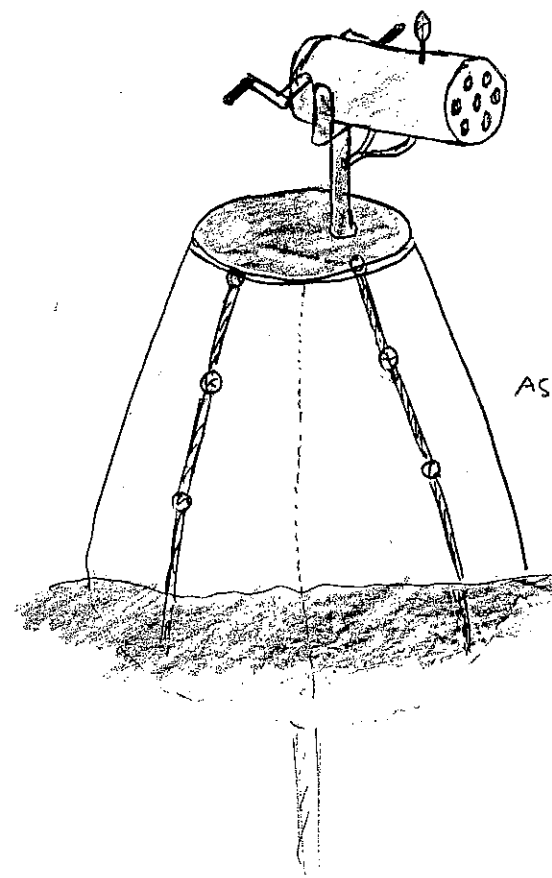
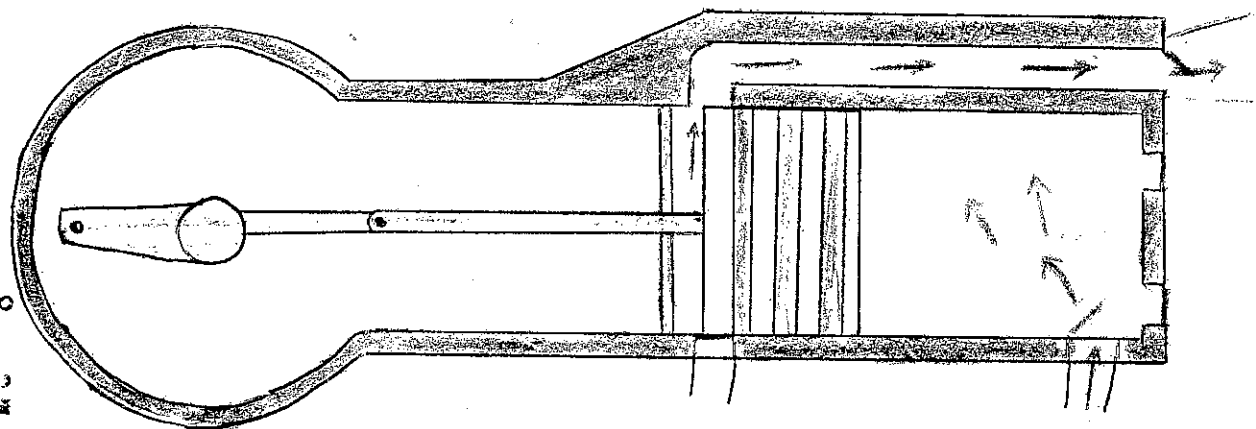
A-A Henderson track/door opening system



# SUPER SKIPPER WATER FORT



CROSS SECTIONS OF WATER CANNON



THE  
ASSEMBLED  
TOY

# Aquatic Amusement Bladder

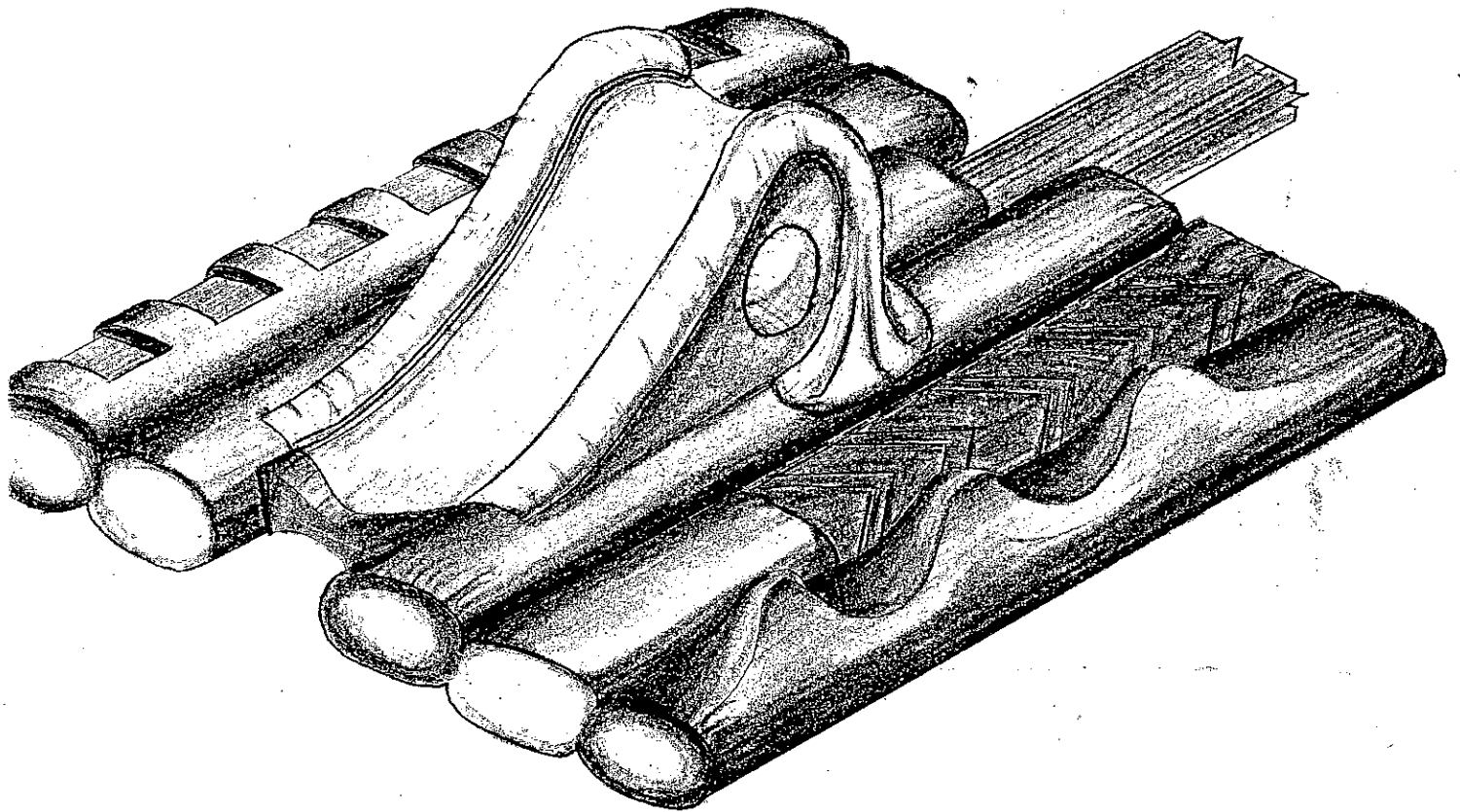


Figure 1. Aquatic Amusement Bladder

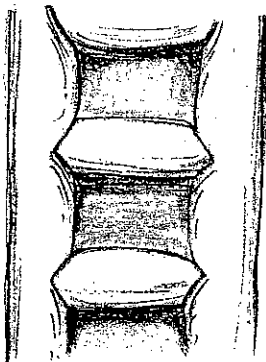


Figure 2.  
Slide Ladder

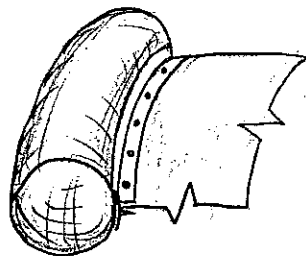


Figure 3.  
Coupling format for  
the bladder and Slide

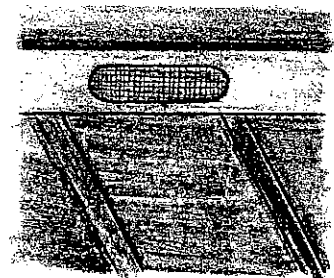
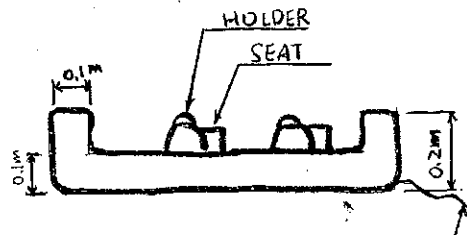
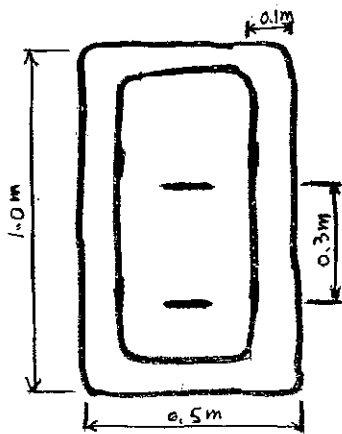
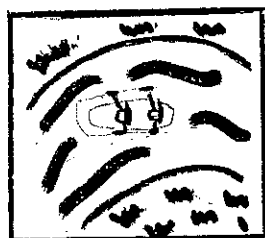
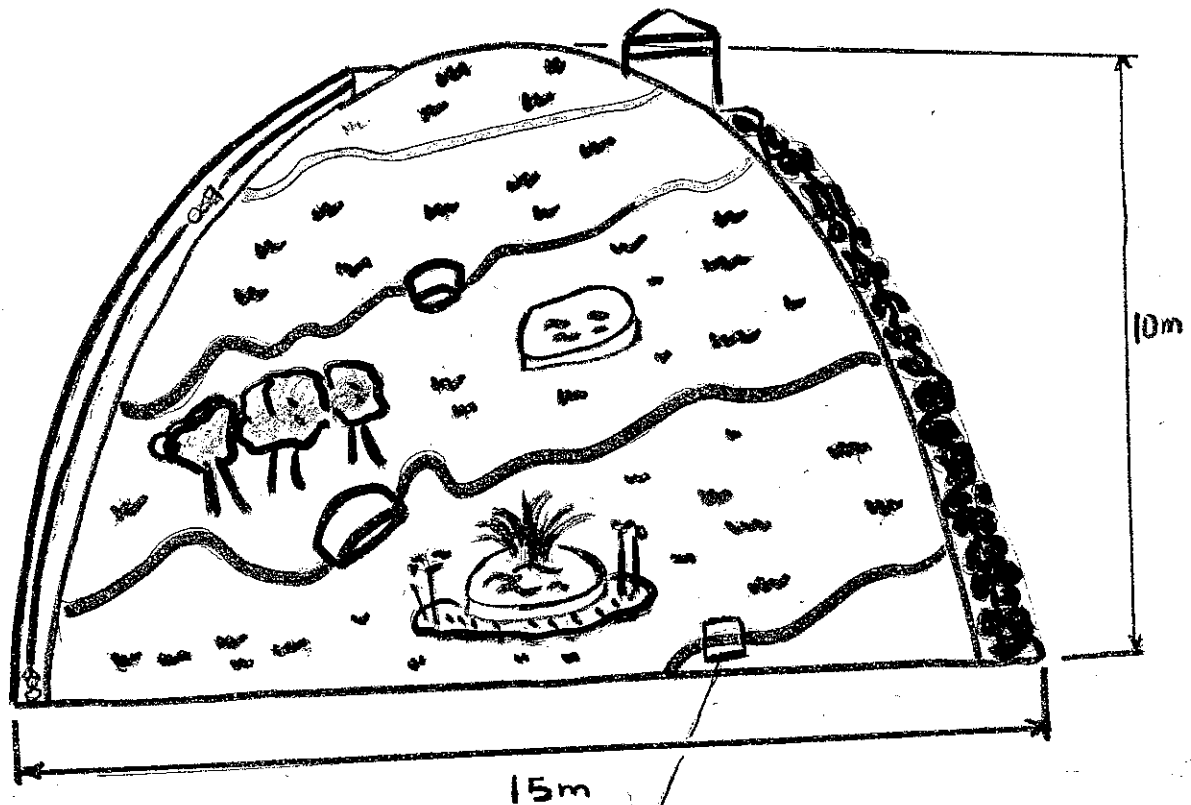
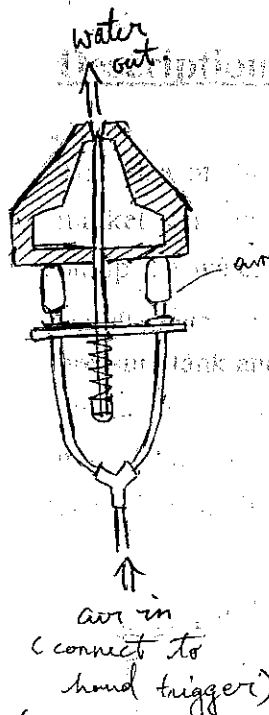


Figure 4.  
Slip and slide water  
transfer holes

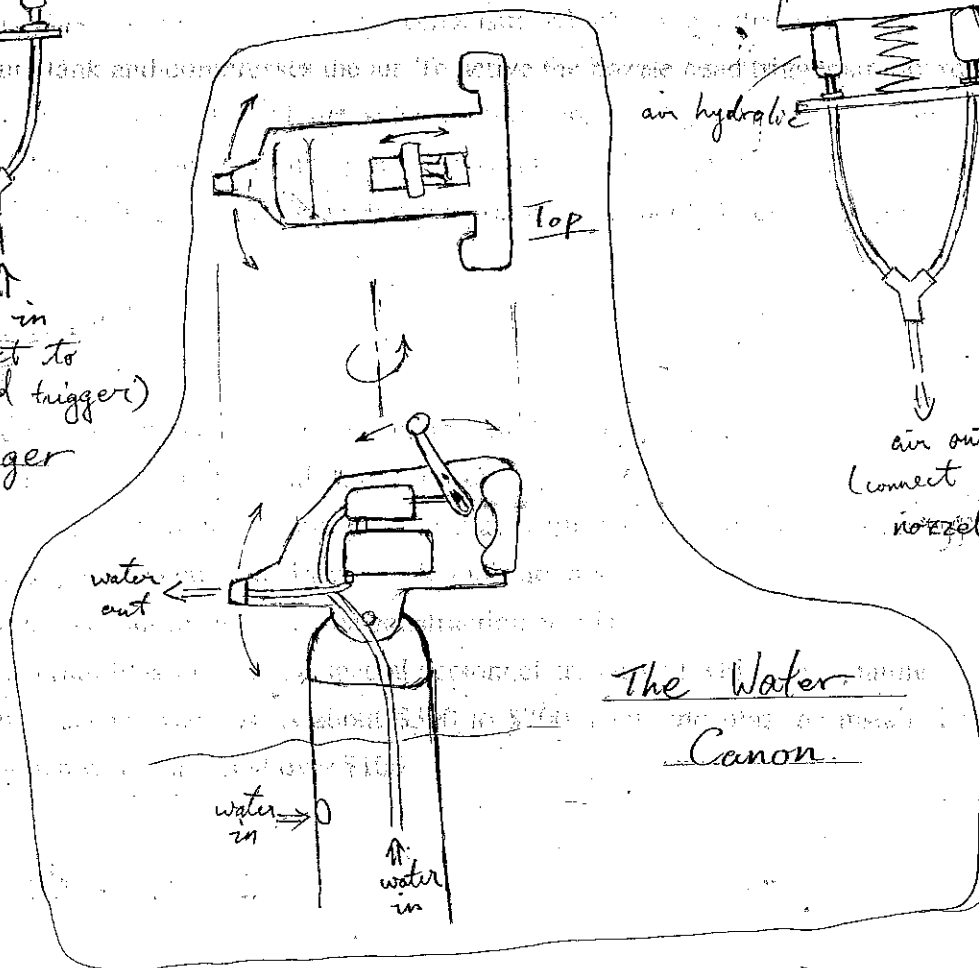


HYDRE - SLIDE

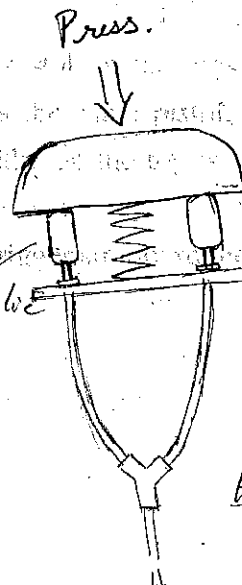




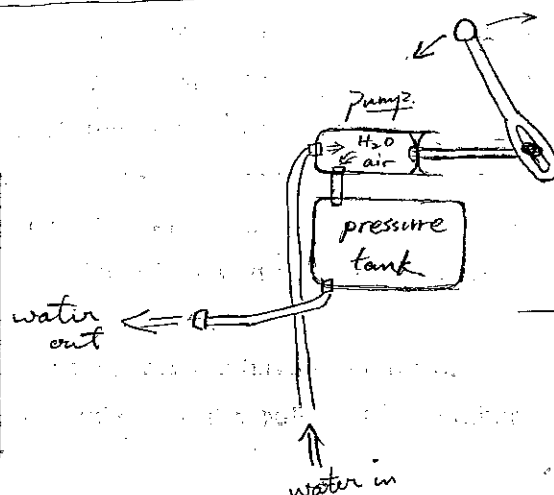
Nozzle Trigger



The Water Canon



Hand Trigger

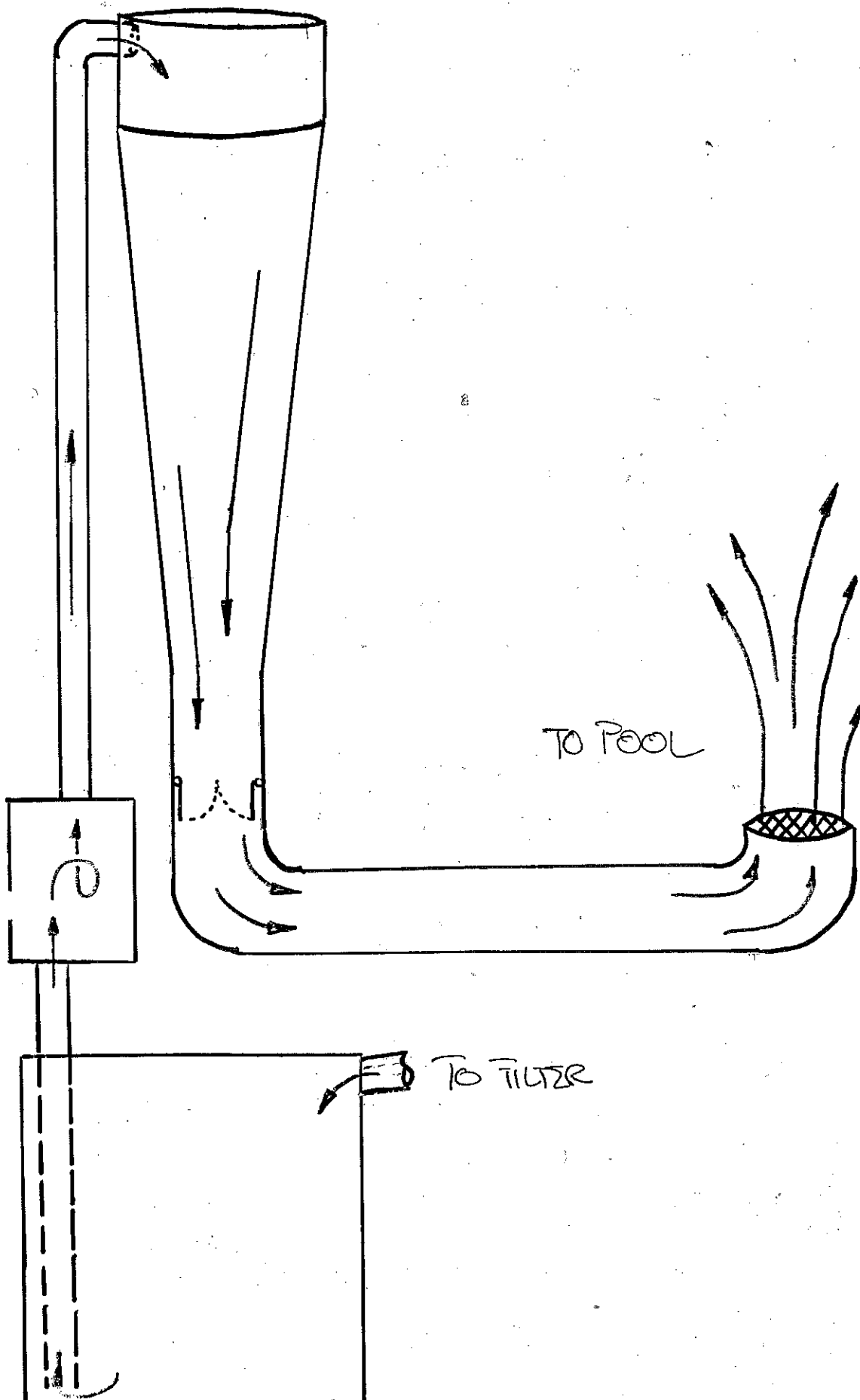


Pumping Mechanism

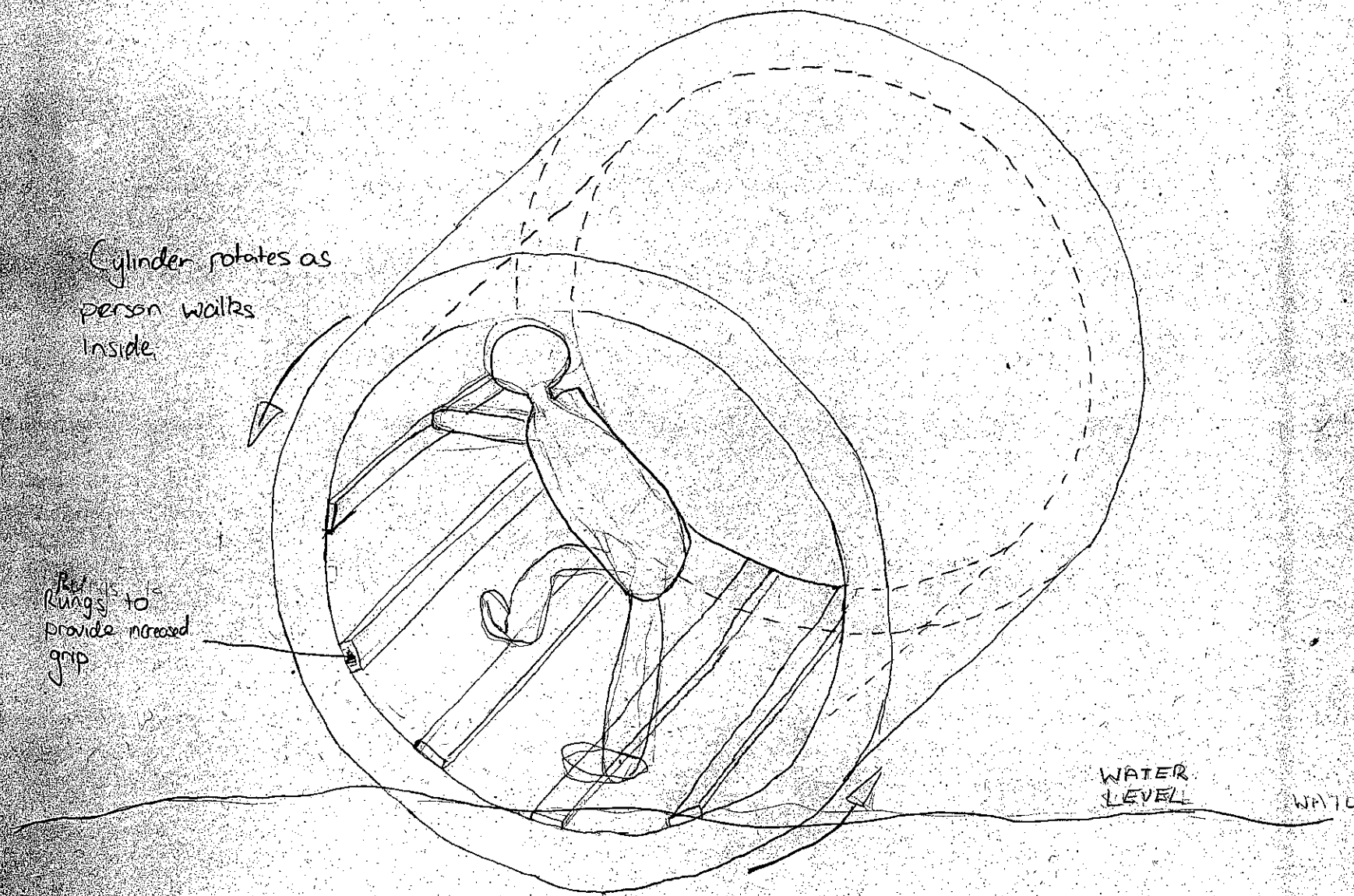
→ parts movement

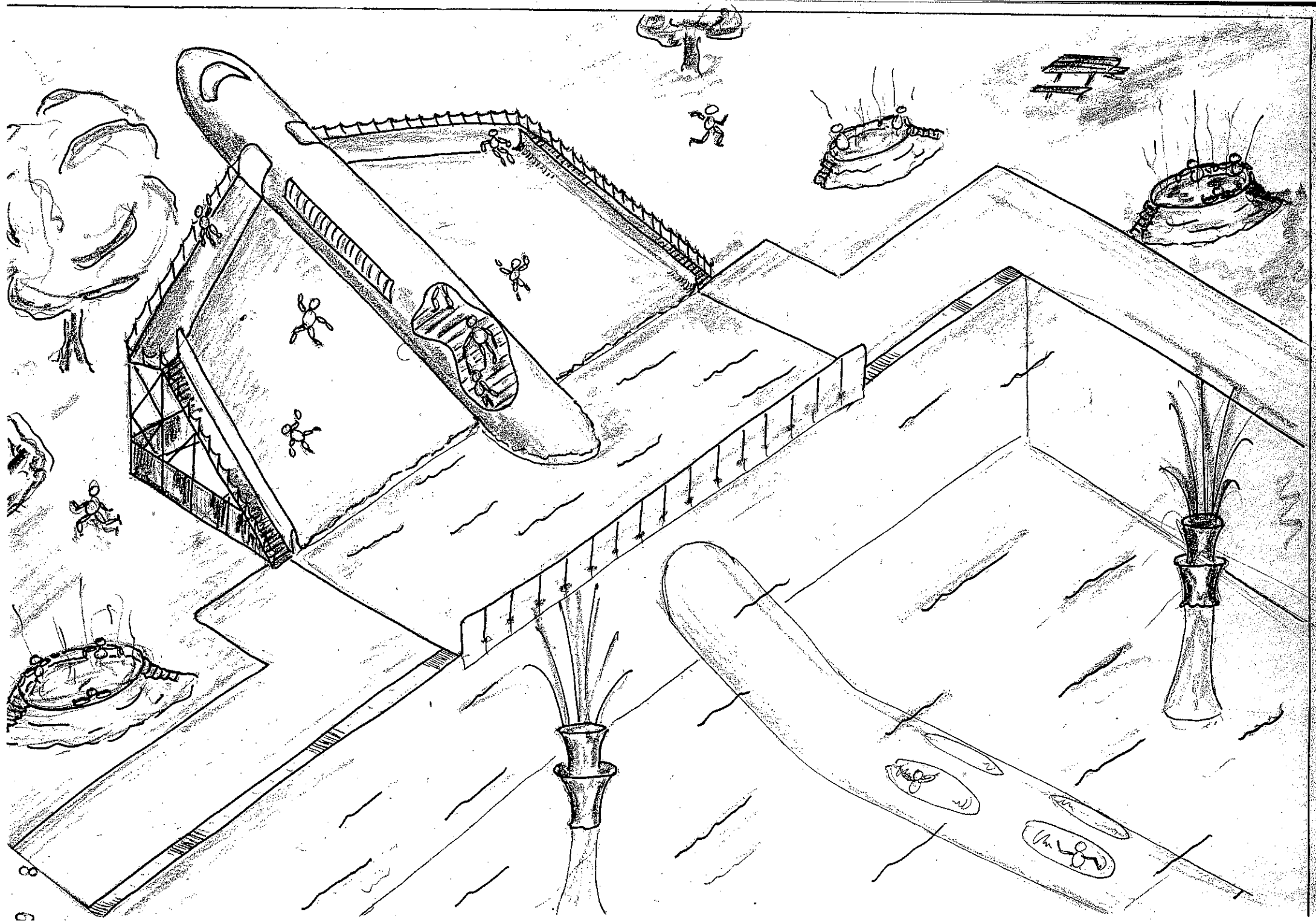
⇒ water and air flow

# FILTERER, PUMP, HOLDING TANK



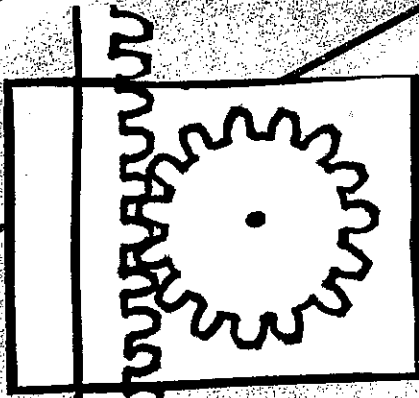
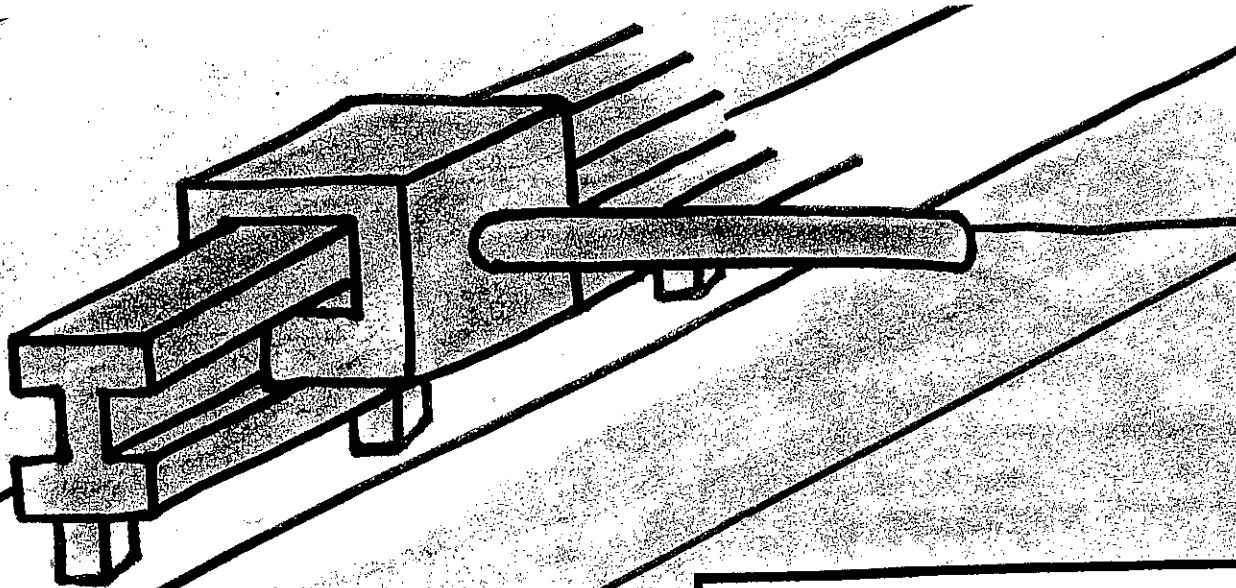
# Aquatic Water Toy - The 'Mouse Wheel'



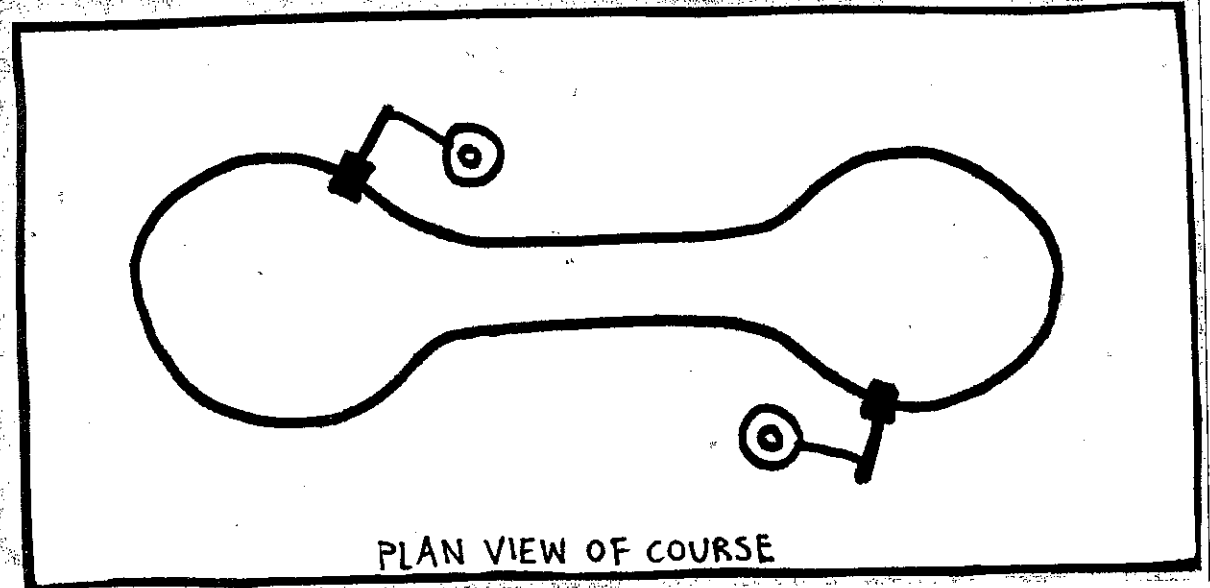




# The Dog Biscuit



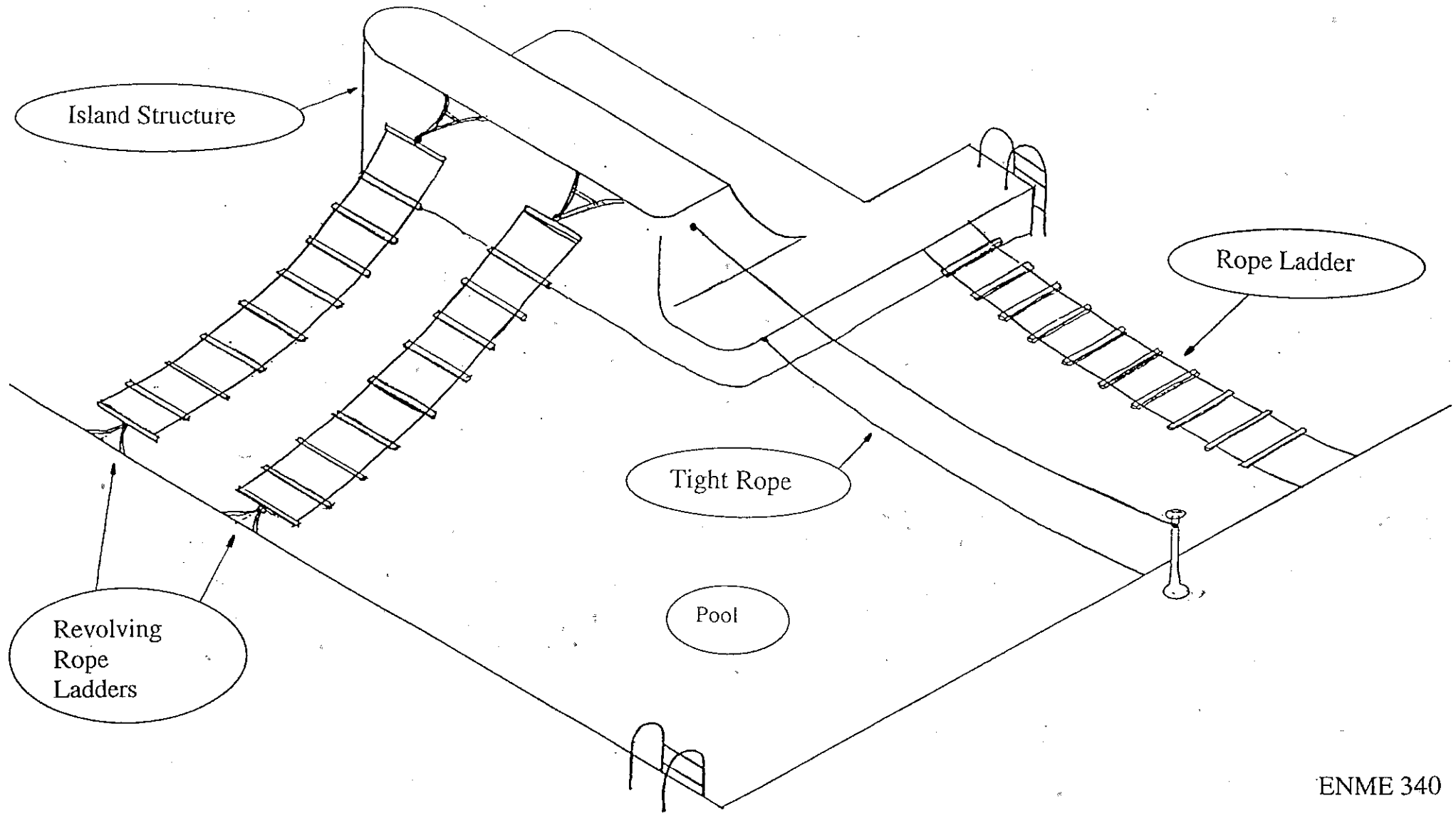
BLOCK AND  
I-BEAM CONNECTION



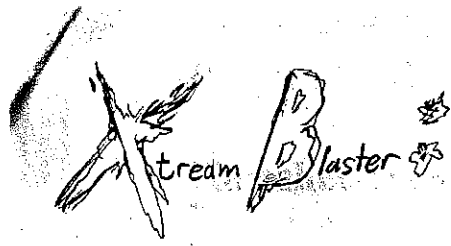
PLAN VIEW OF COURSE

# Mechanical Engineering Design A

## Water Feature



ENME 340



Approx. overall dimensions:

Height 1.8m

Length (base) 0.6m

Width 0.6m

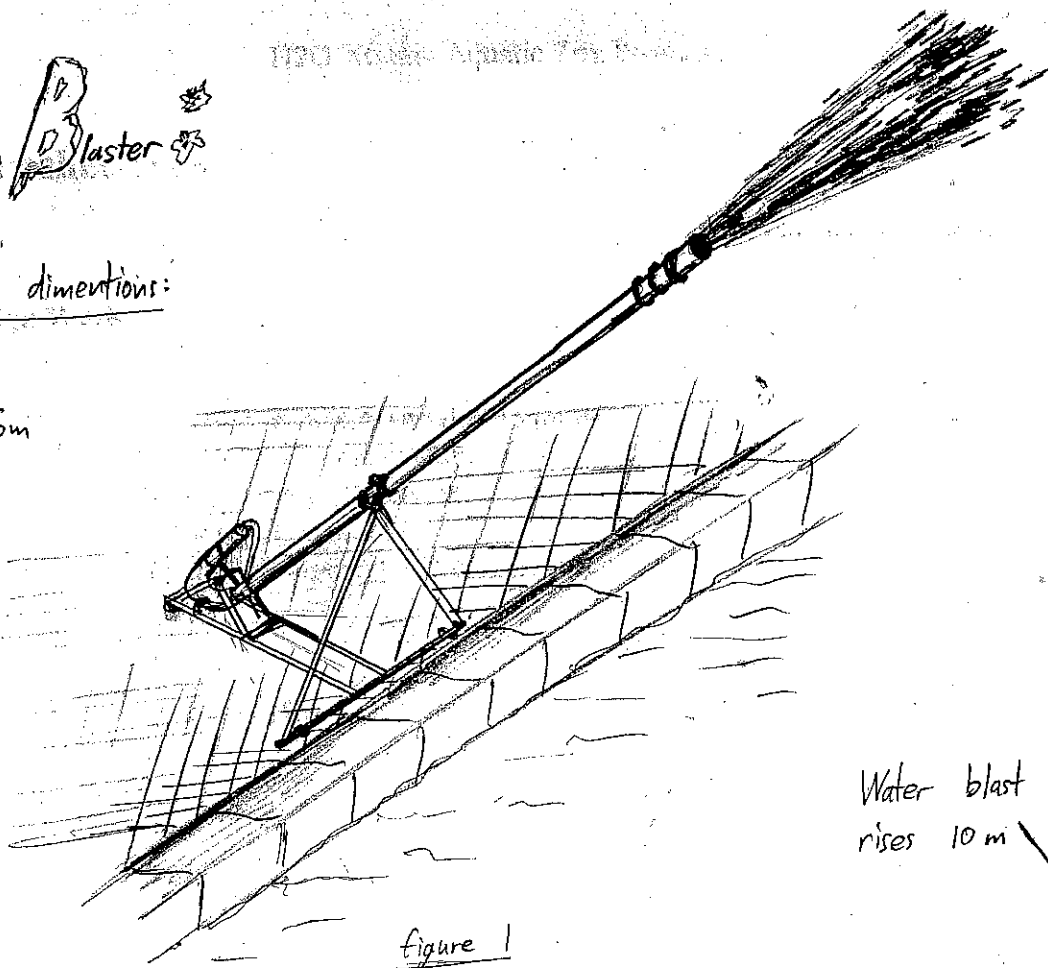


figure 1

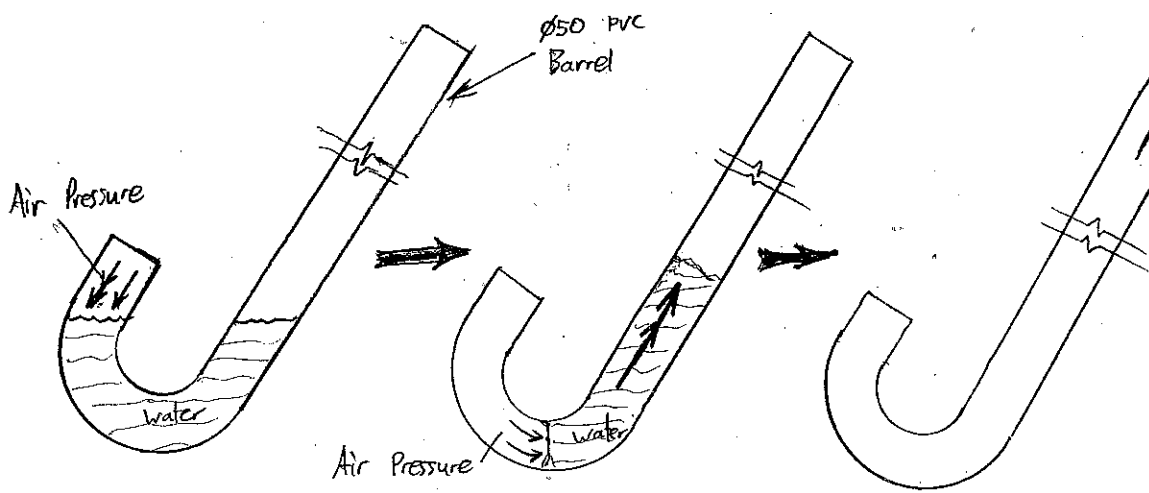


figure 2

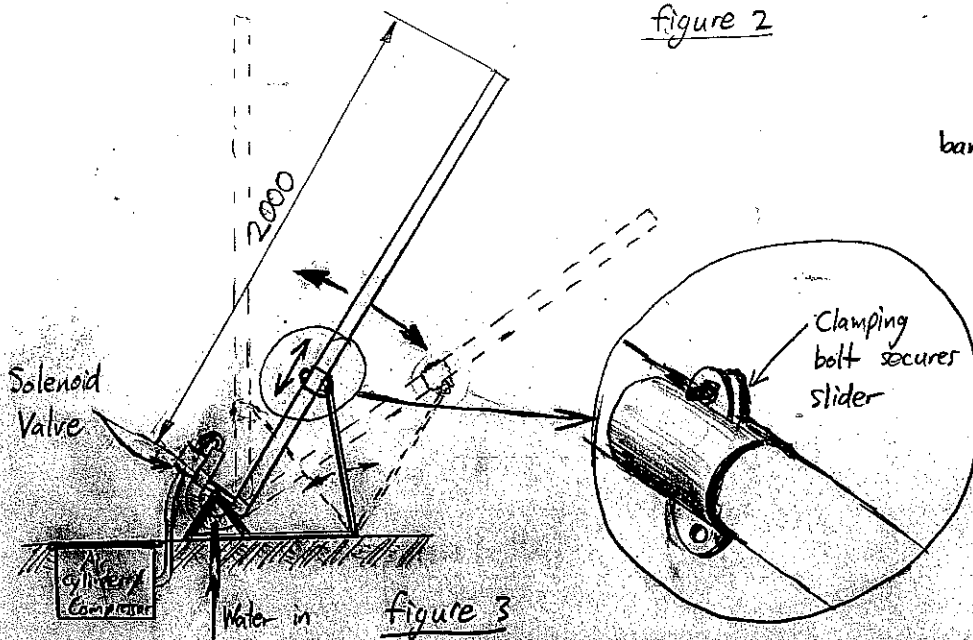


figure 3

### Attachments

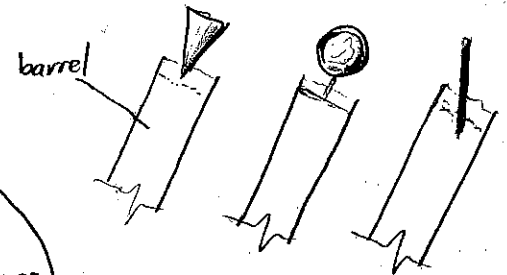


figure 4

12000000

