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# Choosing, Building, Using and Maintaining **VIP Latrines**

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THE REPUBLIC OF UGANDA



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Ministry of Health (Health Inspectorate)  
Ministry of Water & Mineral Development  
Ministry of Local Government

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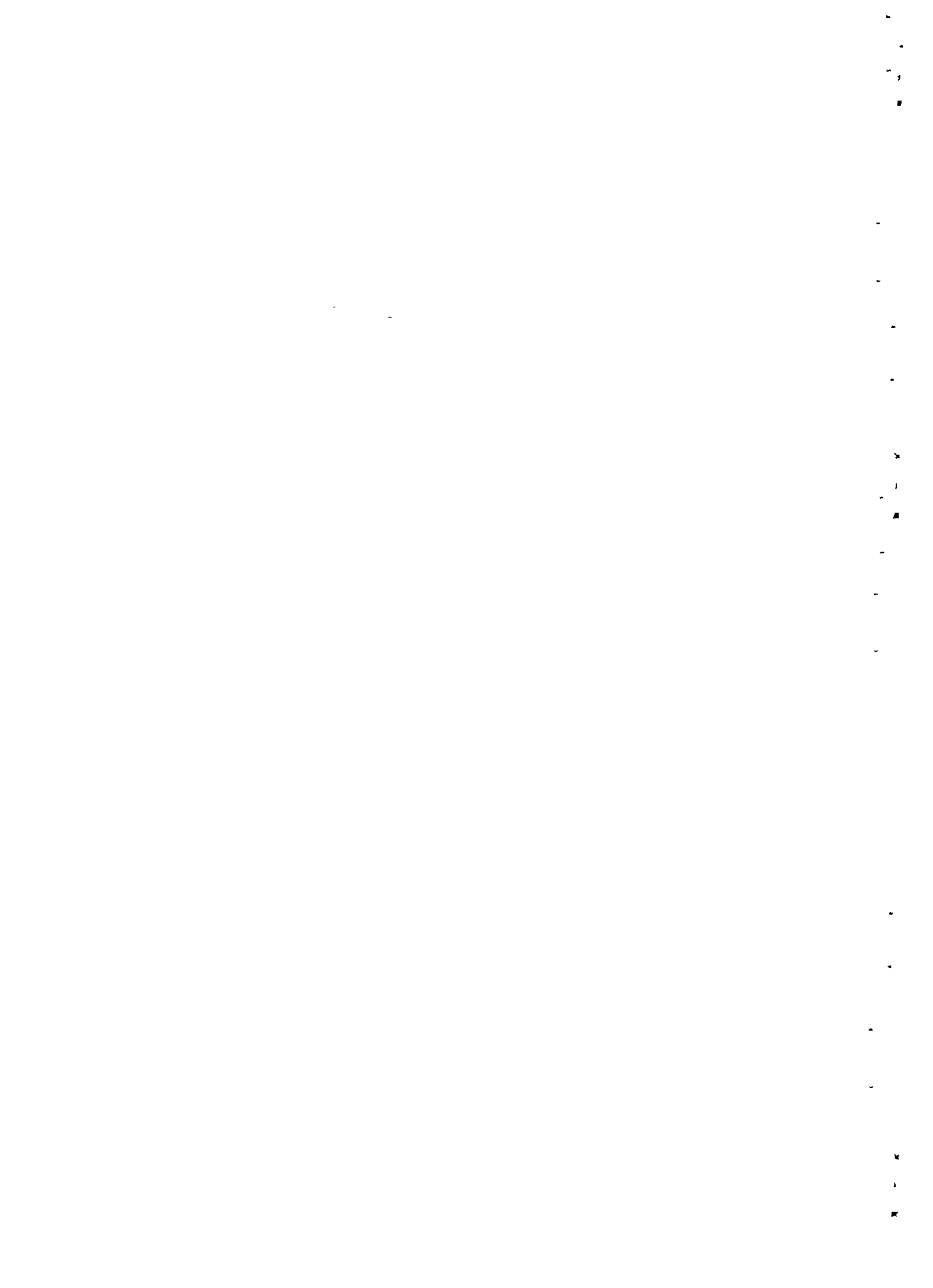
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# PEOPLE AND DISEASES




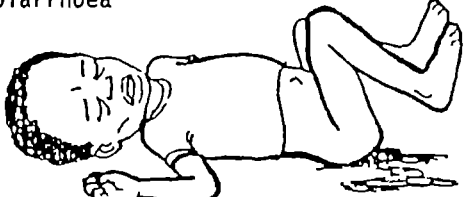
## The Pit Latrine 's Purpose

Every day, all human beings pass faeces and urine to get rid of waste from their bodies. Although it is normal to do this, it can be a danger to our health if the faeces and urine are passed onto the open ground or into water.

Disease is spread when people who are sick pass germs or parasites in their faeces or urine. If the faeces or urine get into other people's food, drinking or bathing water, they can also become sick or infested.

Diseases spread by eating food or drinking water contaminated by germs:

Cholera		A person with the disease passes faeces with disease
Polio		germs on the open ground or into water. The faeces
Diarrhoeal		with disease germs get into food or water (it is
Diseases		carried by flies, insects, dirty hands, on unwashed
Typhoid		food, rain carries it into water or it soaks
		underground into water). The food with germs are then
		eaten or the water is drunk and the person who eats it
		becomes sick with the disease.

 <p><b>POLIO</b> Polio causes Permanent Lameness in the Arms or Legs</p>	 <p><b>DIARRHOEA</b> Many Loose Watery Stools. We get Diarrhoea from many types of Diseases</p>	 <p><b>TYPHOID</b> A Fever with Headache, Abdominal Pain, Weakness, Confusion and Diarrhoea</p>  <p><b>CHOLERA</b> A lot of Watery Diarrhoea, Dehydration, Weakness and Collapse</p>
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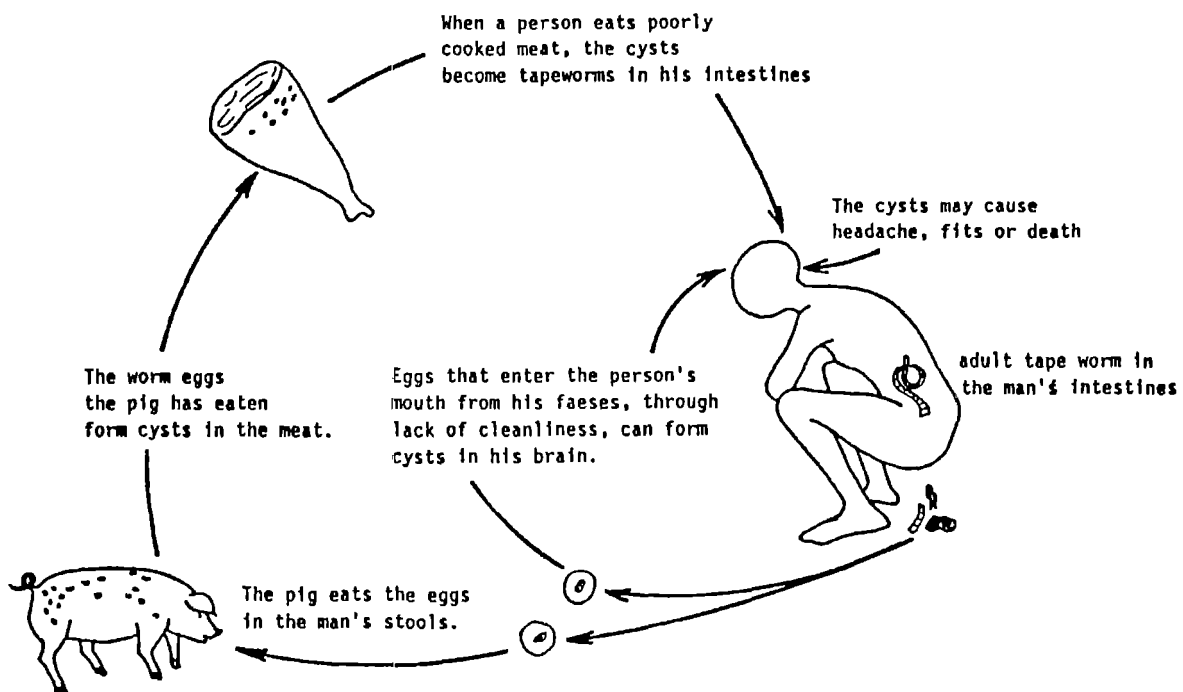
Dysentery | A person suffering from Dysentery passes loose stools stained with blood, and has severe abdominal pain and fever.

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Tapeworm | A person with tapeworm passes faeces with tapeworm eggs in it onto the open ground. Pigs, cows, goats, sheep and other animals eat the eggs in the faeces. The eggs turn into tapeworm cysts which remain in the animal meat after slaughter. If the meat with cysts is not cooked properly, the cysts grow up to be tapeworms in the person who eats it, causing stomach ache. If a man eats tapeworm eggs there is a danger that the eggs will become tapeworm cysts in the brain which can cause headaches, fits or death.

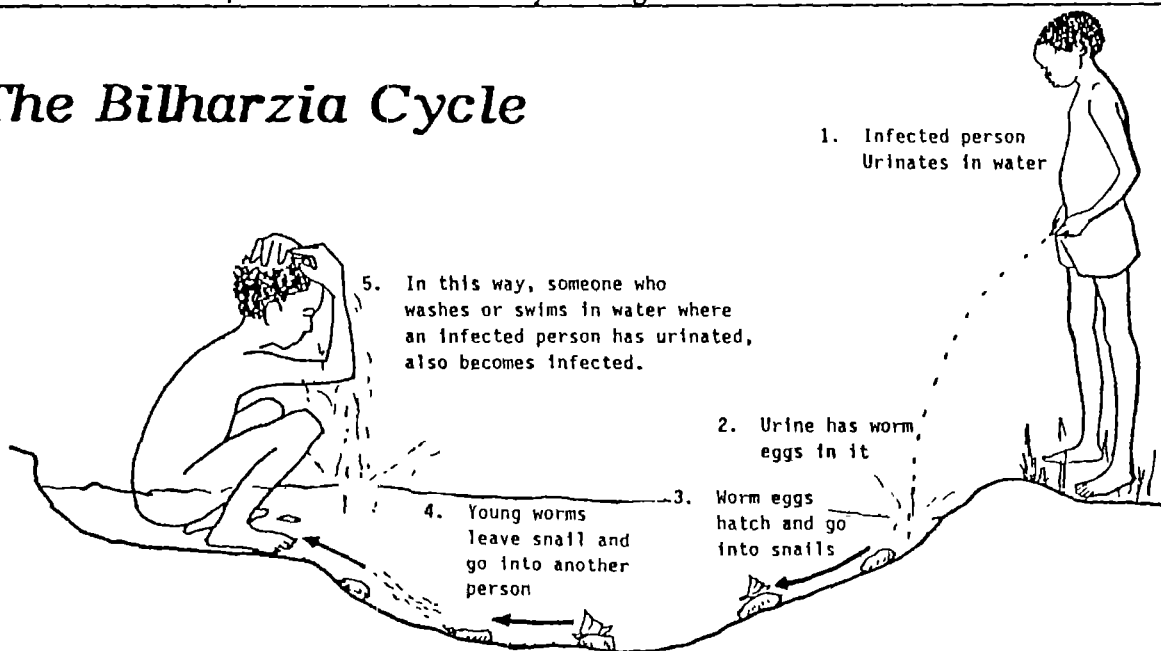
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## The Tapeworm Cycle



Hookworm	A person with hookworm passes faeces with hookworm eggs in it onto open ground. The eggs hatch on the ground. Other people walk or sit on the hookworm larvae which get into their skin and blood. The larvae then grow up inside the people into adult hookworms which lay eggs and make them sick with anaemia, stomach ache and cough.
Threadworm Roundworm Whipworm	A person with the worm passes faeces with worm eggs in it onto the open ground. The faeces with eggs then get onto food (by being carried by flies, insects, dirty hands or on unwashed food) and are eaten. The eggs hatch, grow up and lay eggs in the person who eats them causing itching, cough, swollen bellies or intestinal blockage.
Bilharzia	A human with bilharzia passes urine or faeces with Bilharzia eggs. In water, the eggs hatch and then get into a certain type of water snail where they grow up. They leave the snail as young Bilharzia worms. The young Bilharzia worms then swim in the water and get into the skin of humans who are swimming or bathing. These people then become sick with bilharzia which causes blood in the urine, abdominal pain, low fever and kidney damage.

## The Bilharzia Cycle



## THE PURPOSE OF LATRINES

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The purpose of latrines are to stop the spread of disease and parasites which are carried in faeces and urine. Latrines do this by keeping faeces and urine away from flies, insects, people's hands and bodies, animals, food and water.



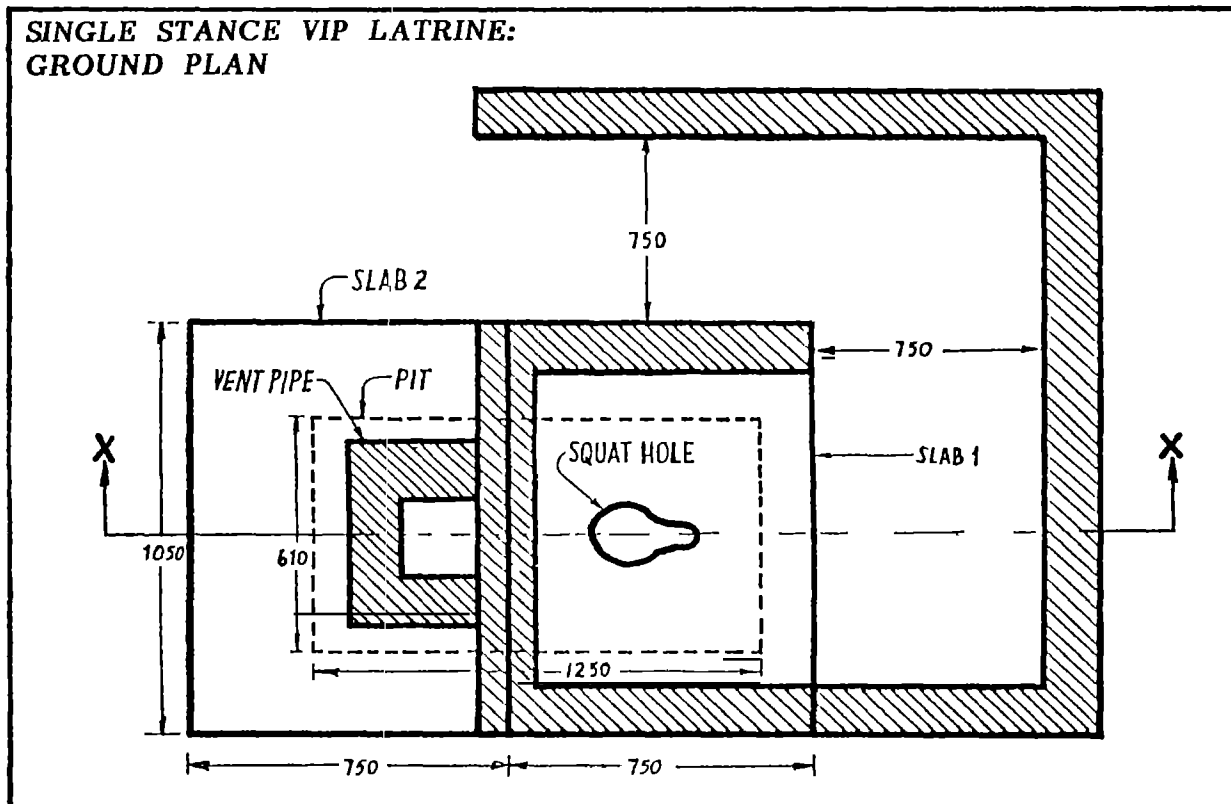
In order for latrines to prevent disease and parasites they need to be:

- built well and in the correct place
- Kept clean and in good repair
- Used properly by the whole community
- Used with other good health practices.

Traditionally a pit latrine is simply a pit dug into the ground over which a floor with a squat hole is built. Faeces and urine are passed through the hole and kept in the pit. Walls and a roof and door of some sort (known as the "superstructure") are usually built on top of the floor to give privacy and protect the user and floor from rain. There is usually a close fitting cover for the squat hole in order to prevent flies from getting into the pit and breeding, or carrying faeces out of the pit. An improvement over this traditional pit latrine is called the

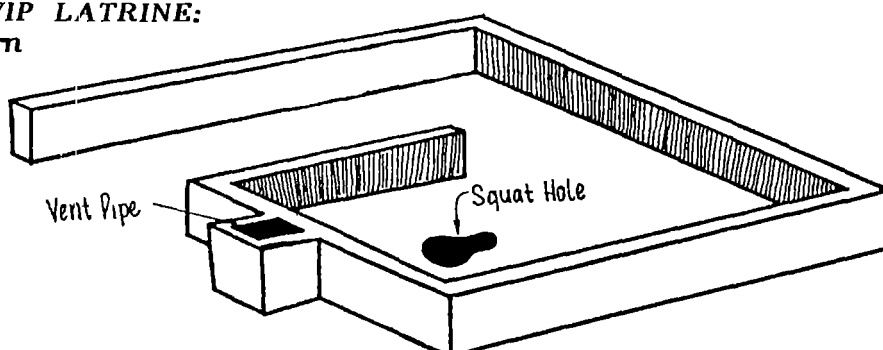
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"Ventilated Improved Pit" latrine (also known as the VIP or Blair latrine). This is where a screened pipe or chimney stack is built into the floor allowing air to be carried out of the pit. The superstructure does not necessitate a door but is built in a spiral or rectangular

**SINGLE STANCE VIP LATRINE:  
Construction Pattern**



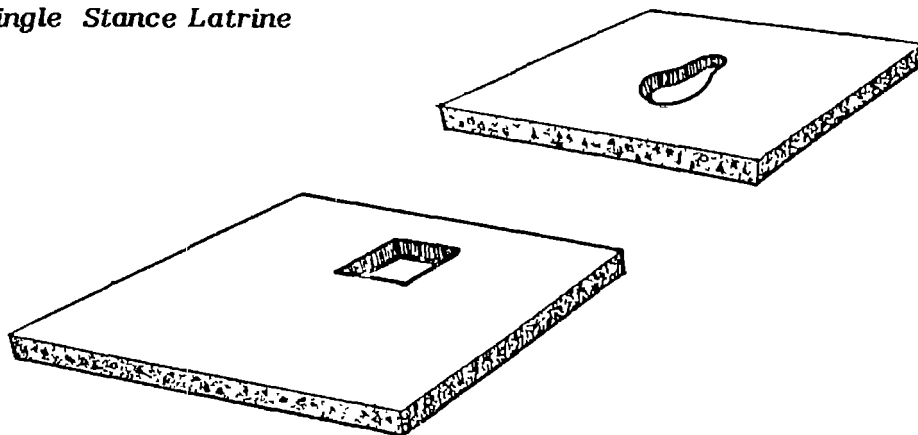
pattern and there is no cover for the squat hole. This leaves air free to blow through the superstructure and across the top of the screened pipe. The air carries bad odours out of the pit but traps flies inside the screen where they die. The VIP latrine, the government is promoting, also comes with a precast concrete slab floor. The advantage of a concrete floor is that it can be washed easily to stay clean and odour free, and once the latrine is full the concrete slabs can be used for a new latrine.

## **THE GOVERNMENT LATRINE PROGRAMME**

The Ministries of Local Government and of Health encourage families, schools, health centres and communities to build VIP type latrines because they are more attractive to use (there are less odours and flies) because they trap flies and cause them to die, and because the concrete floors are easier to keep clean.

In order to encourage people to build VIP latrines, the Ministry of Health, Health Inspectorate at District Level is making precast concrete latrine slabs. The Latrine slabs made at the District Casting Yard are reinforced with steel to be very strong. They are 50 millimetres (2 inches) thick. They are 0.75 metres (28 inches) wide and 1.05 metre (40 inches) long. The slabs come in a set of two pieces: one piece has a squat hole in it and the other has a vent hole in it. These are the specified slabs for a single stance VIP Latrine.

### ***Slab Set for a Single Stance Latrine***

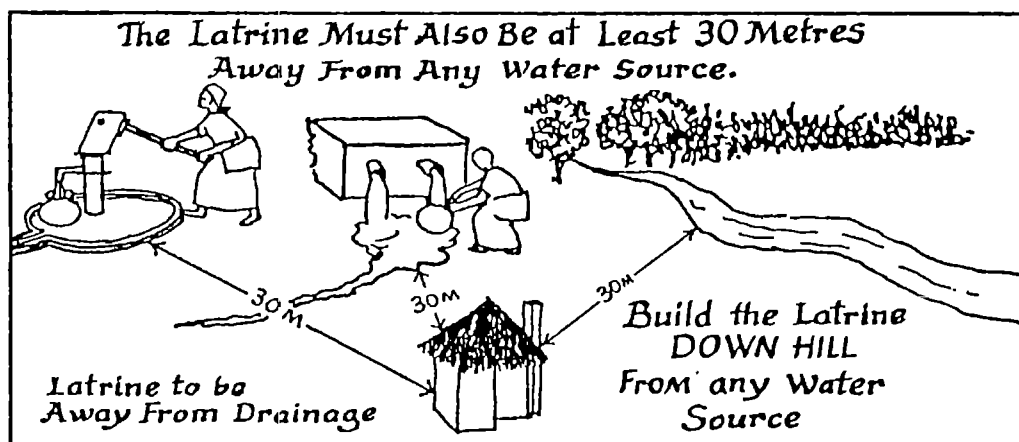


The slabs and mesh are distributed to Community Development/Health Workers at sub-county level. These ready made latrine and mesh floors are for sale at low cost to anyone who wishes to build a VIP latrine. If you are planning to build a VIP latrine, you should contact your area Health Inspector or Health Assistant or Community Worker to get a slab and information on how to build a VIP latrine.

## THE PLACE FOR A LATRINE

No matter what kind of latrine is made, it needs to follow these rules in order to work properly. The place for a latrine must be:

- On hard ground where a 4.5 metre (15 feet) pit can be dug without reaching water or rock. If water or rock is reached before the pit is finished you will have to stop digging and find another place for the latrine, or seek advice from health assistant.
- 30 metres (100 feet) or more away from pumps, boreholes, wells, unprotected or protected springs, streams, rivers, swamps or any other water source. This is because the germs in the faeces from the pit can soak into the ground and travel into water close by. The germs cannot travel more than 30 metre through earth so this is a safe distance away from water.



- 10 metres (30 feet) or more away from places where people live, prepare food or work such as houses, hotels, kitchens, schools, food stores or offices. This is because the latrine will then be close enough to walk to, but far enough away to keep bad odours and flies from being a nuisance or health problem.
- Away from hanging branches because they "break" the speed of wind over the vent.
- On hard soil as soft soils are likely to collapse during the digging of the pit. Advice should be sought from the Health/Community workers prior to the digging.

# ***BUILDING A LATRINE***

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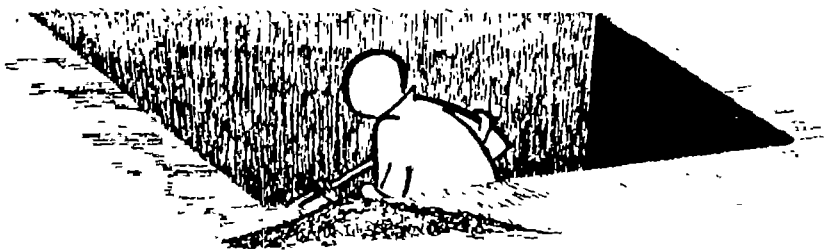
## ***Digging the Pit for a Latrine***

If you are using a precast concrete slab floor made by the Ministry of Local Government, it is important that the pit is dug to exact measurements in order for the slab to fit. If the pit is too big, the slab may fall inside. If it is too small, the pit may fill up with faeces too quickly after being built.

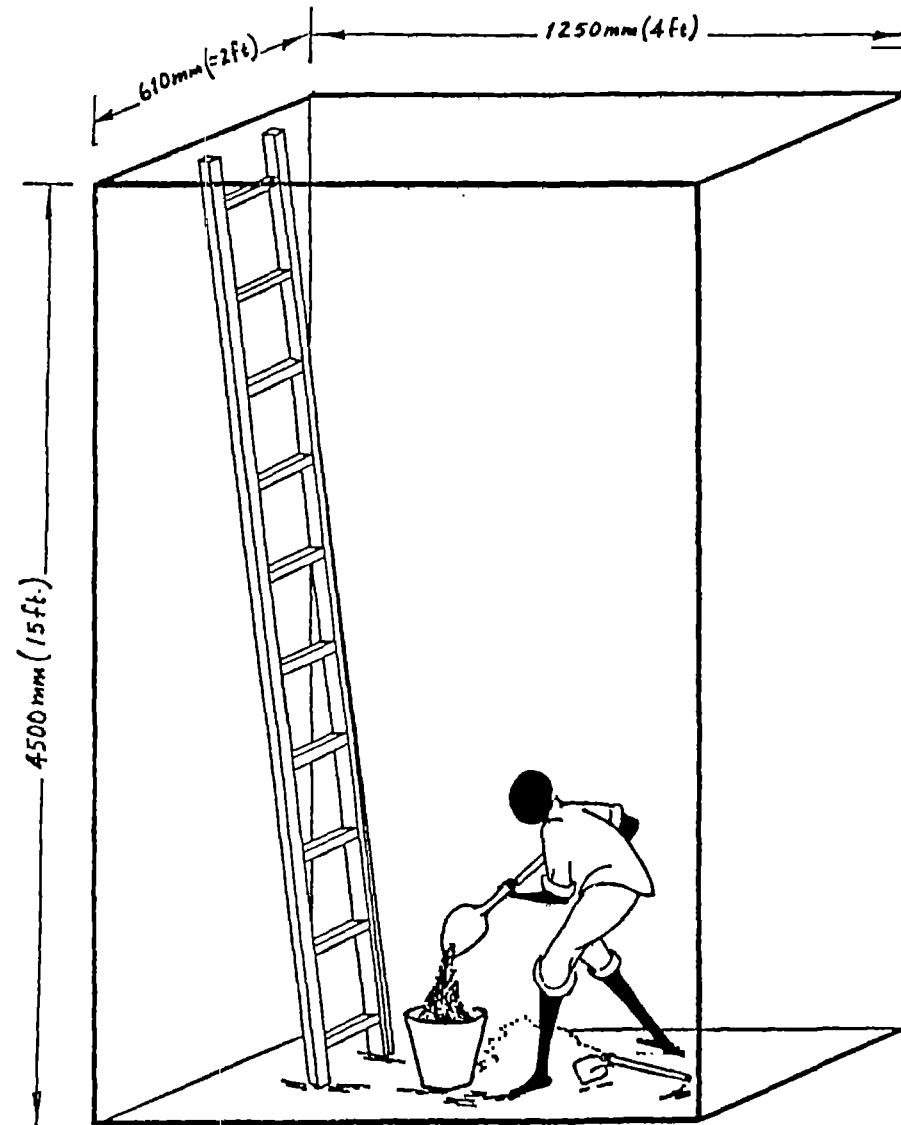
The following pit digging instructions are meant for building a VIP latrine using a precast concrete slab floor from the Ministry of Local Government:

### ***Digging***

- Clear the place of bush, grass and stones.
- Use a tape measure and square to mark out a rectangle of 0.61 metres by 1.25 metres (2 feet by 4 feet) for a single stance latrine or 0.61 metres by 1.98 metres (2ft by 6 1/2ft) for a double stance latrine. Place wood pegs at each corner of the rectangle. Tie a string tightly around the pegs to mark out the edges of the pit.
- Begin digging straight down inside the line made with the string. Make sure the corners are sharp (at right angles) using the square and that the sides are straight using a plumb bob. Use a panga to trim the sides as you keep digging.



- Use a bucket and rope to remove earth from the pit. Heap the earth two metres or more away from the pit.



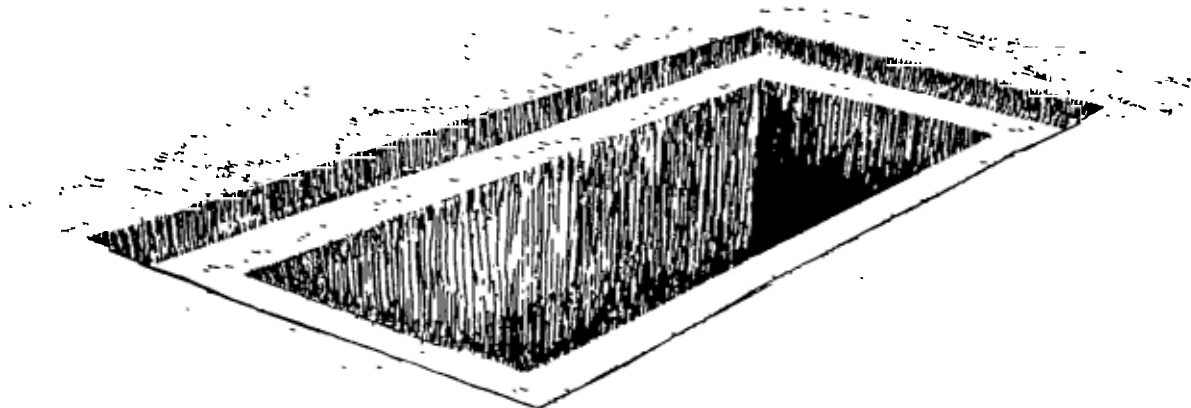
- If you are on sloping ground, put the earth downhill to keep it from running back into the pit with rain.
- Dig the pit down to 4.5 metres (15 feet).
- Dig a drain 2 metres (6 feet) away from the edge of the pit so that rain water is drained away from the pit and down hill.
- The soil on which the pit is dug must be stable, if there is any sign of instability the pit should be abandoned, backfilled and another location selected.

### ***Removing the Top Soil***

The precast concrete slab needs to sit down level on the ground over the top of the pit. In some areas the top soil is soft and loose and can

lead to erosion or problems with termites. Therefore you must dig away the loose top soil as follows and make a "ring wall" or plinth on which the slab floor will sit.

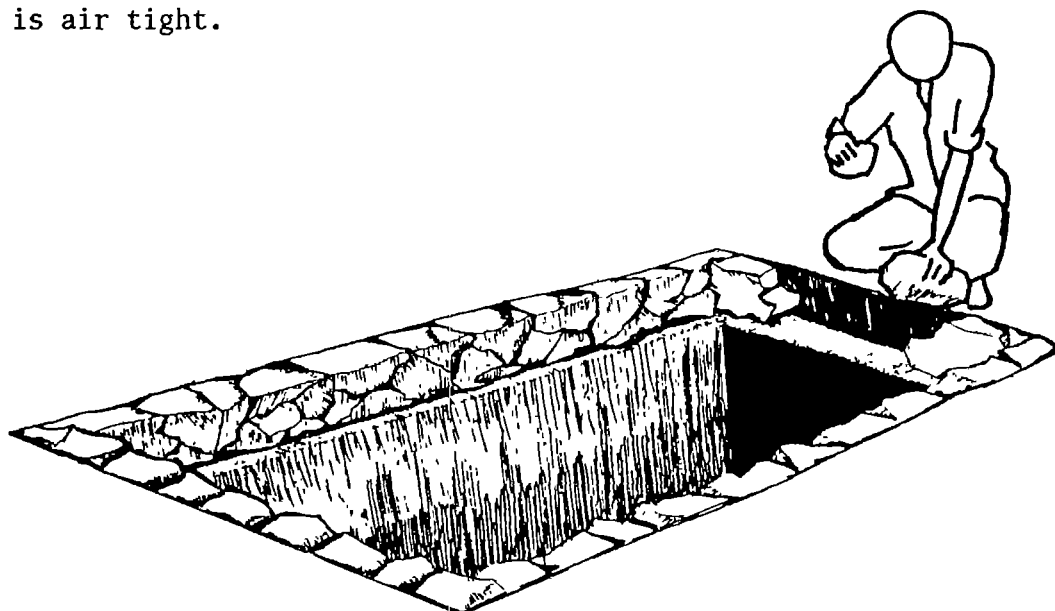
- Use a tape measure and square to mark out a rectangle of  $1\frac{1}{2}$  feet from the edge of the newly dug pit. Put wood pegs at each corner and tie a string tightly around the pegs to mark out the edges of the topsoil area.



- Begin digging straight down to a depth of at least .3 metres (1 foot) or down to hard, firm soil. Make sure the corners are sharp using the square, and that the base is level and tightly packed down.

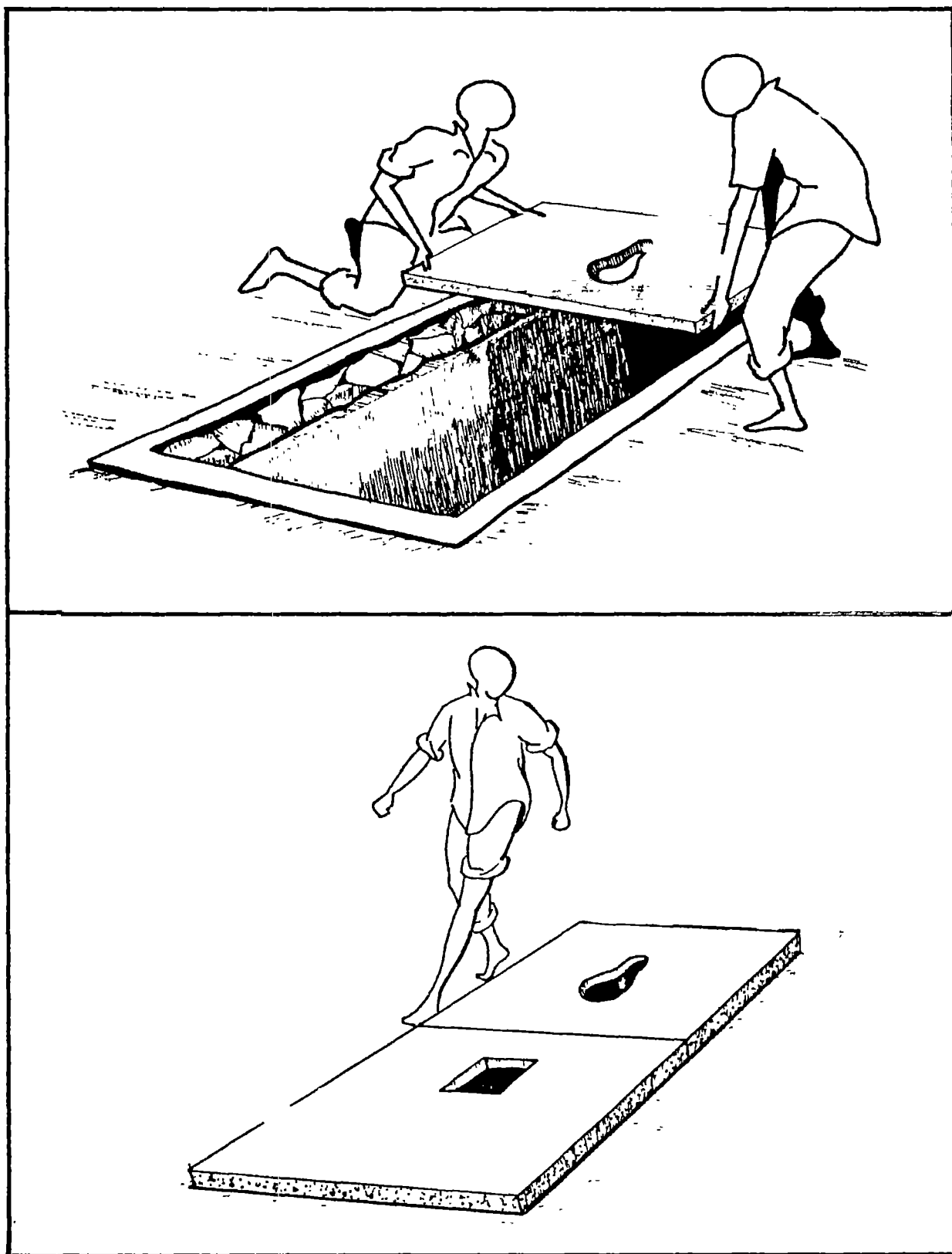
### ***Making the Collar Wall***

- Using bricks or stones with well kneaded clay, build a small wall inside the area around the pit where you have removed the top soil.
- Ensure that the top is level so that when the slab is placed, the pit is air tight.



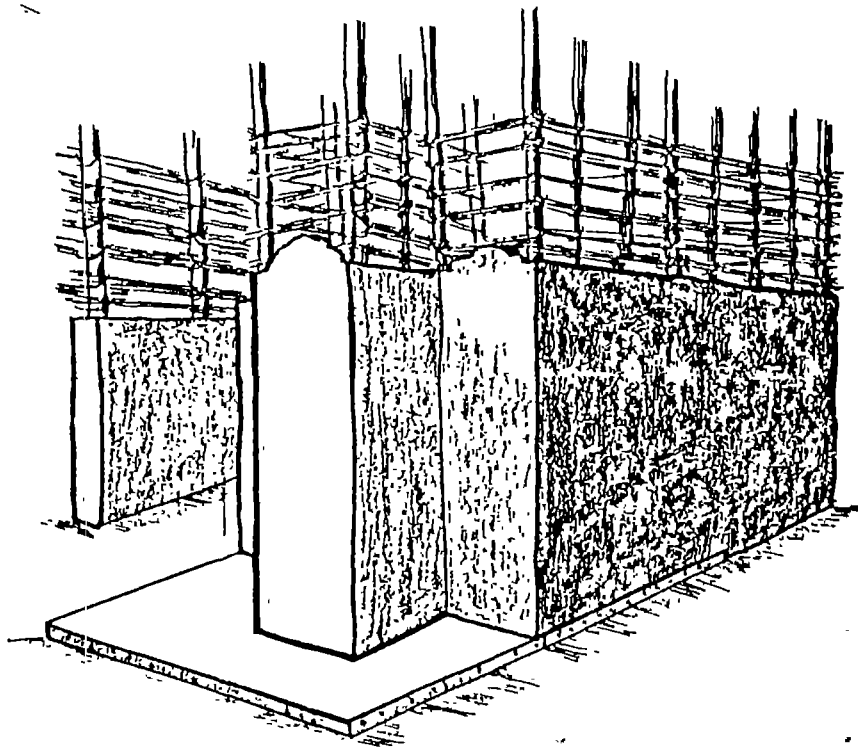
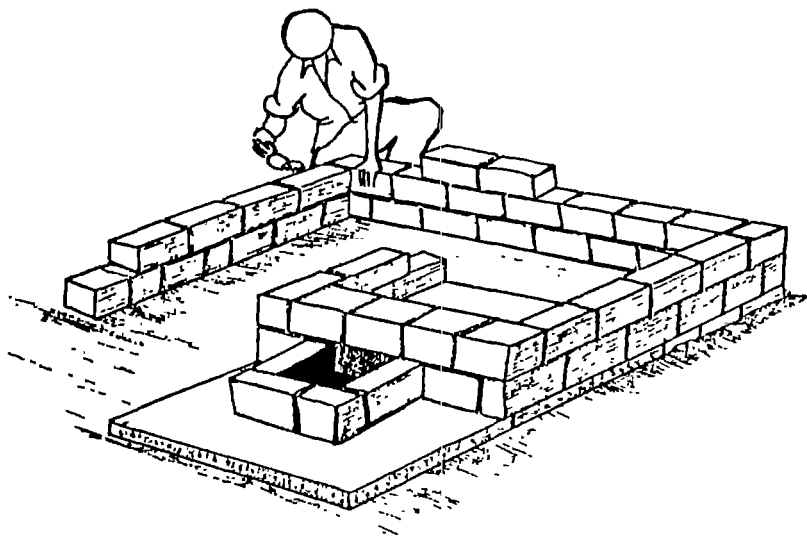
## Placing the Precast Slabs

- Place the slabs over the pit as shown in this diagram.



## **ERECTING WALLS/CONSTRUCTING ROOF**

The method in which you make the walls and roof will depend on the type of superstructure you want and what type of materials you have. Keep in mind the construction of the vent pipe when working on your superstructure design. But whatever materials you use, the basic plan should look as follows:

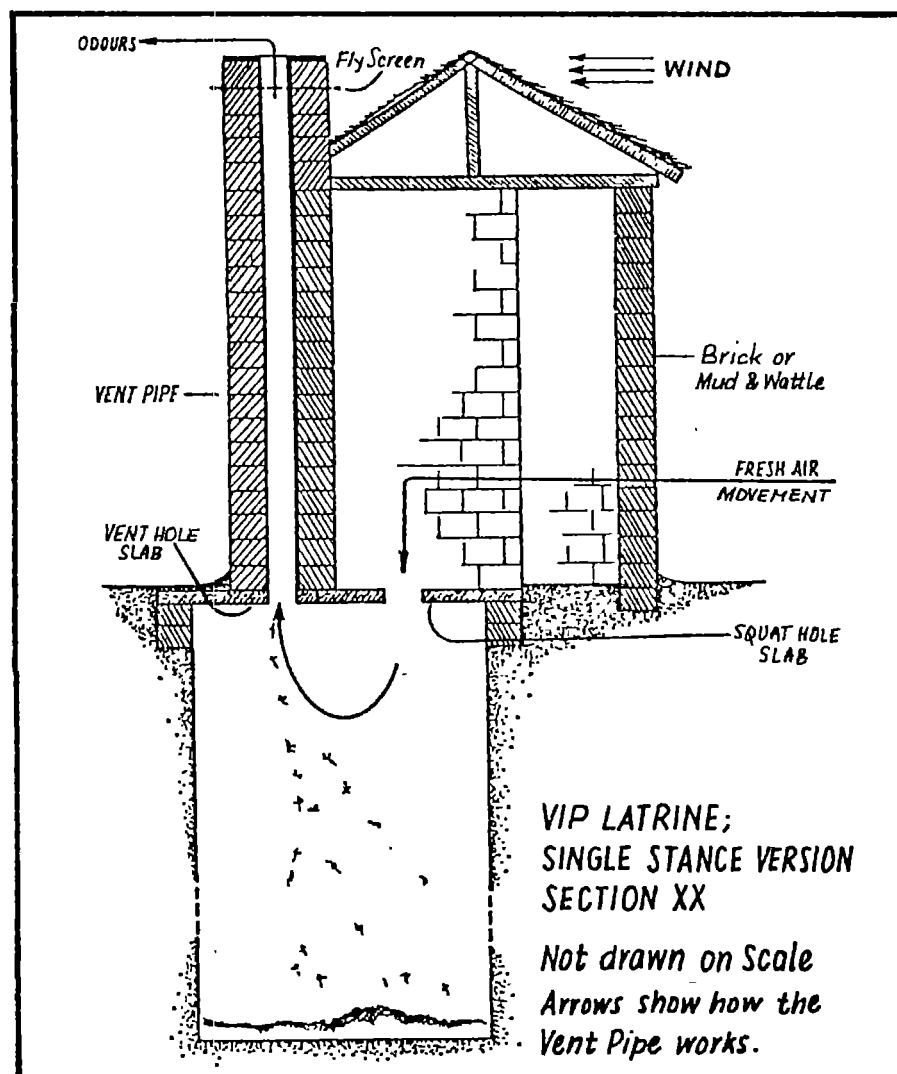




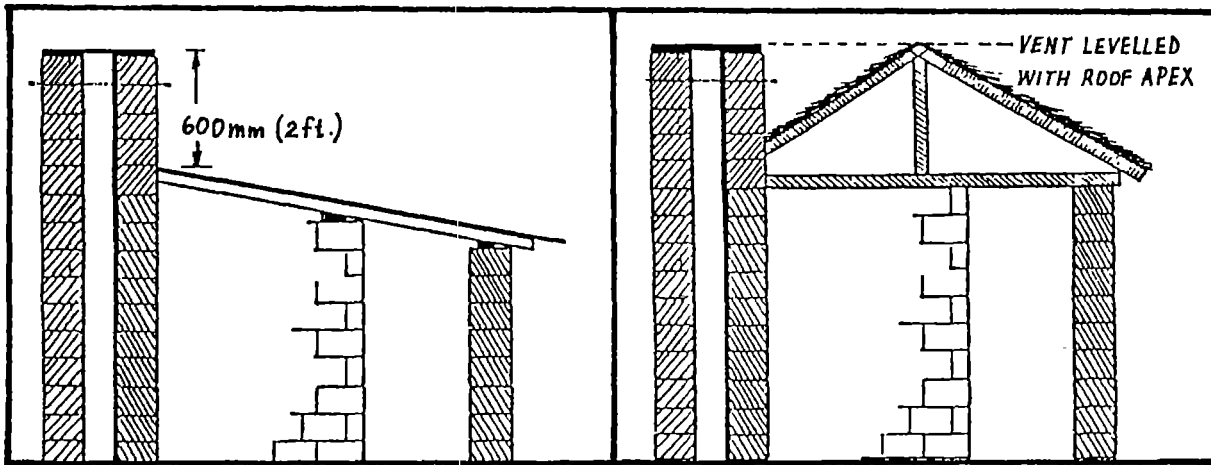
## FINISHING THE VENT PIPE

- The vent pipe can be made of sun dried bricks and mortar or mud wattle or whatever local materials are available. The vent pipe comes up around the hole made in the slab.
- The inside of the vent must be smooth to minimise frictional losses which might impede on air flow

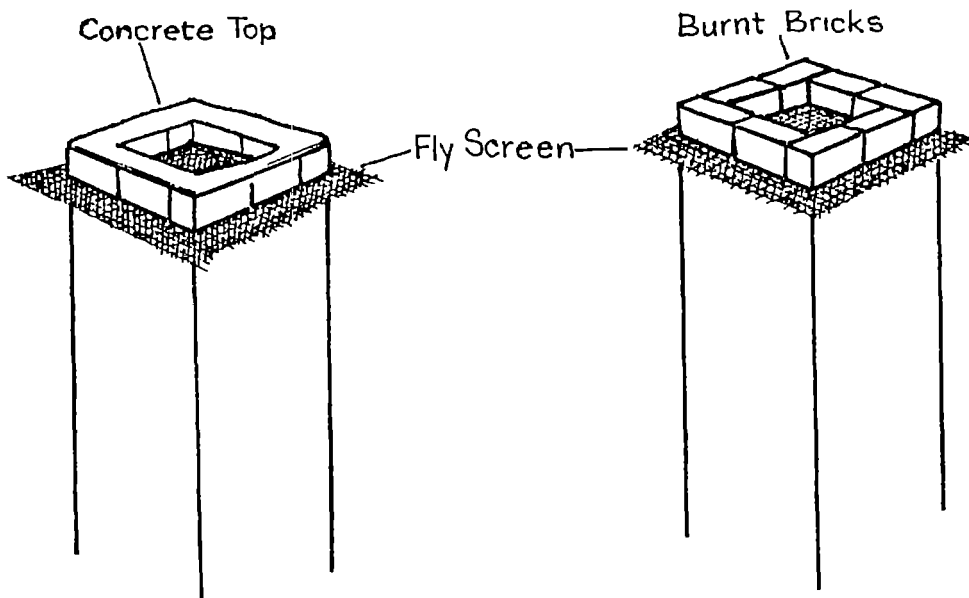
**Cross Section of a Single Stance Latrine  
to show how the VENT PIPE works**



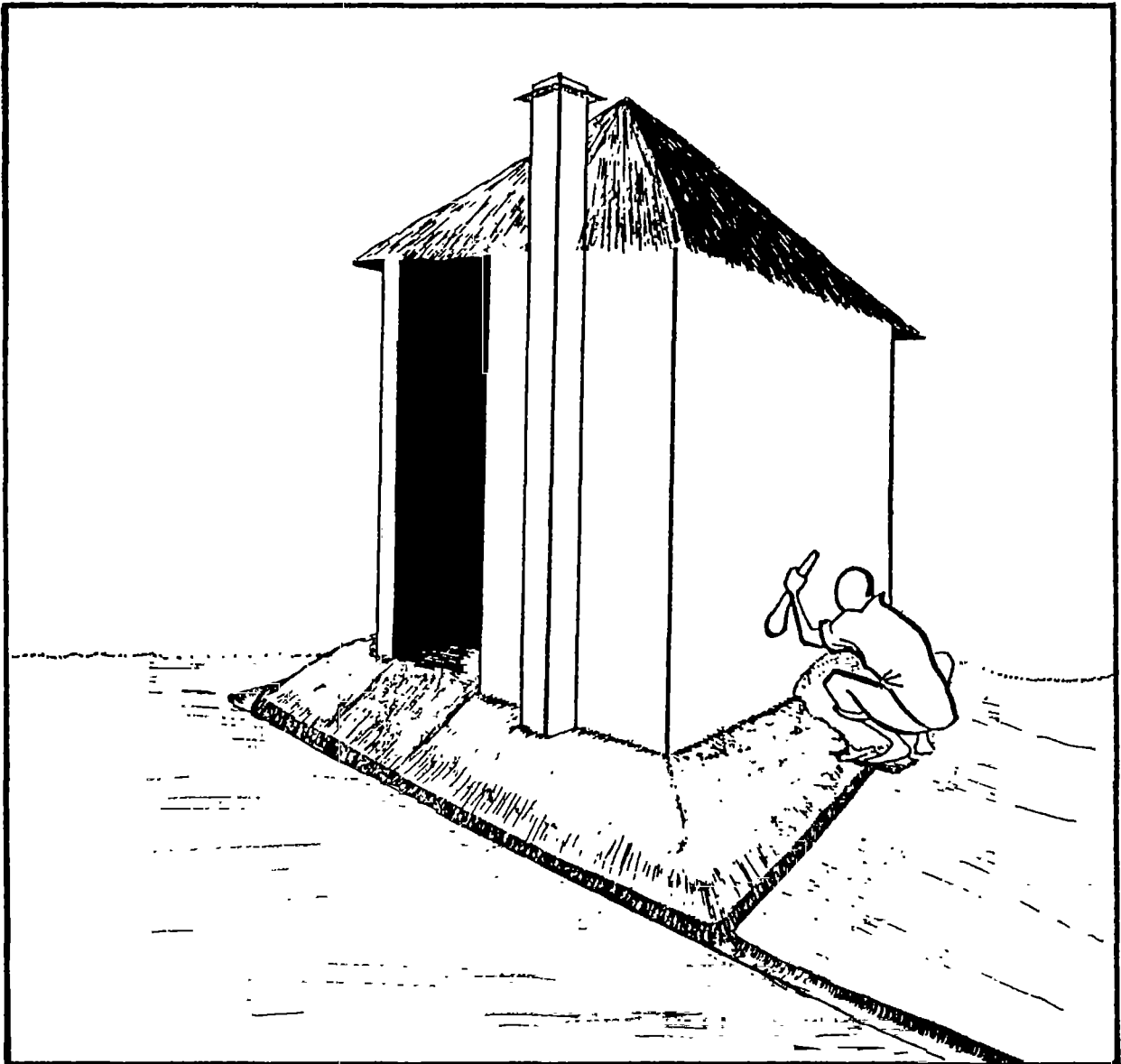
- Make the vent pipe come to about .6 (2 ft) above the roof level, or level with the apex of a round thatched roof.



- Put in a fly screen across the vent pipe opening just before the last layer of bricks.
- Level the top with clay to stop the rain from washing the top bricks away.
- Protect the top of the vent pipe with one of the methods shown in this diagram:



- Fill the floor of the passage between the outside of the latrine up to the slab with hard packed earth, so that the slabs are underground.
- Put hard packed earth around the outside wall up to 150 mm (6 inches) above ground level. Make the hard packed earth slope away from the latrine walls so that rain water washes away from the latrine. This packed earth around the latrine is called the "apron".



- Clean the area around the latrine of waste materials from building and digging. Make a clear path from the latrine up to the house to encourage full use of the latrine.

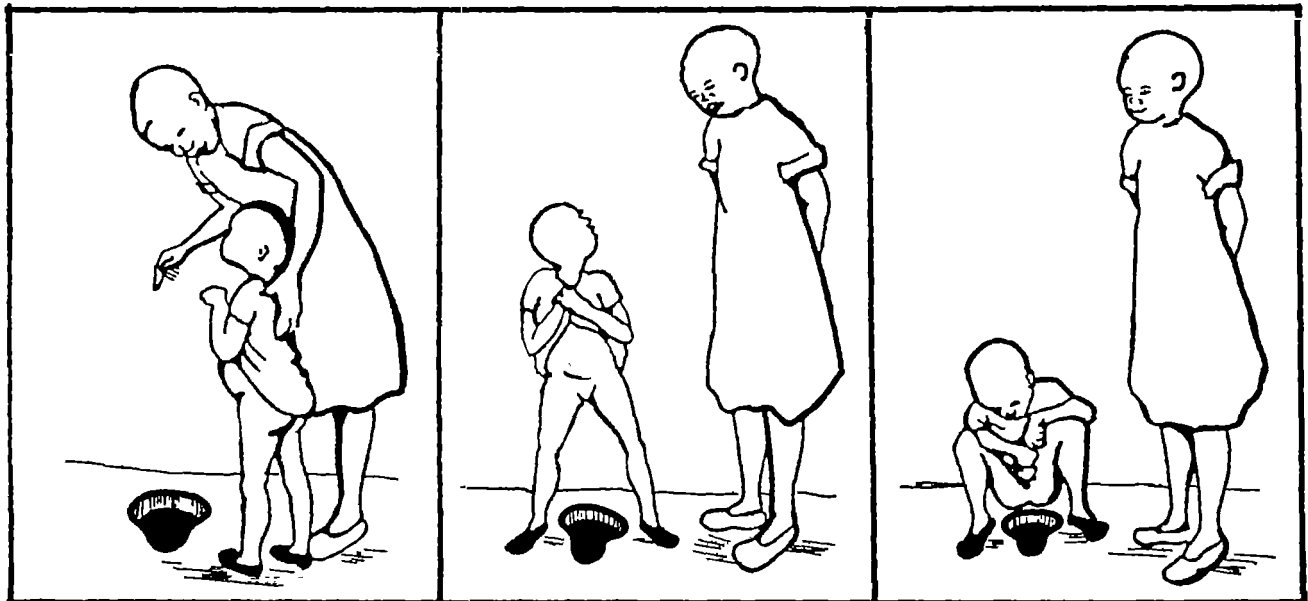
## **USING A VIP LATRINE**

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Parents should teach all their children how to use a latrine correctly.

The following instructions would be a very useful guide:

- Place feet on both sides of the hole and squat so that the body is directly over the hole.



- Pass faeces or urine into the hole, taking care that nothing soils the slab.
- Any papers or other materials used for personal cleaning should be put down the hole.
- Wash your hands after using the latrine.
- If children are too small to learn to use the latrine yet, collect their faeces on a leaf or paper and throw them into the latrine.
- Teach children how to use the latrine.

### **Keeping a VIP Clean**

Keeping a latrine clean is simple but must be done regularly.

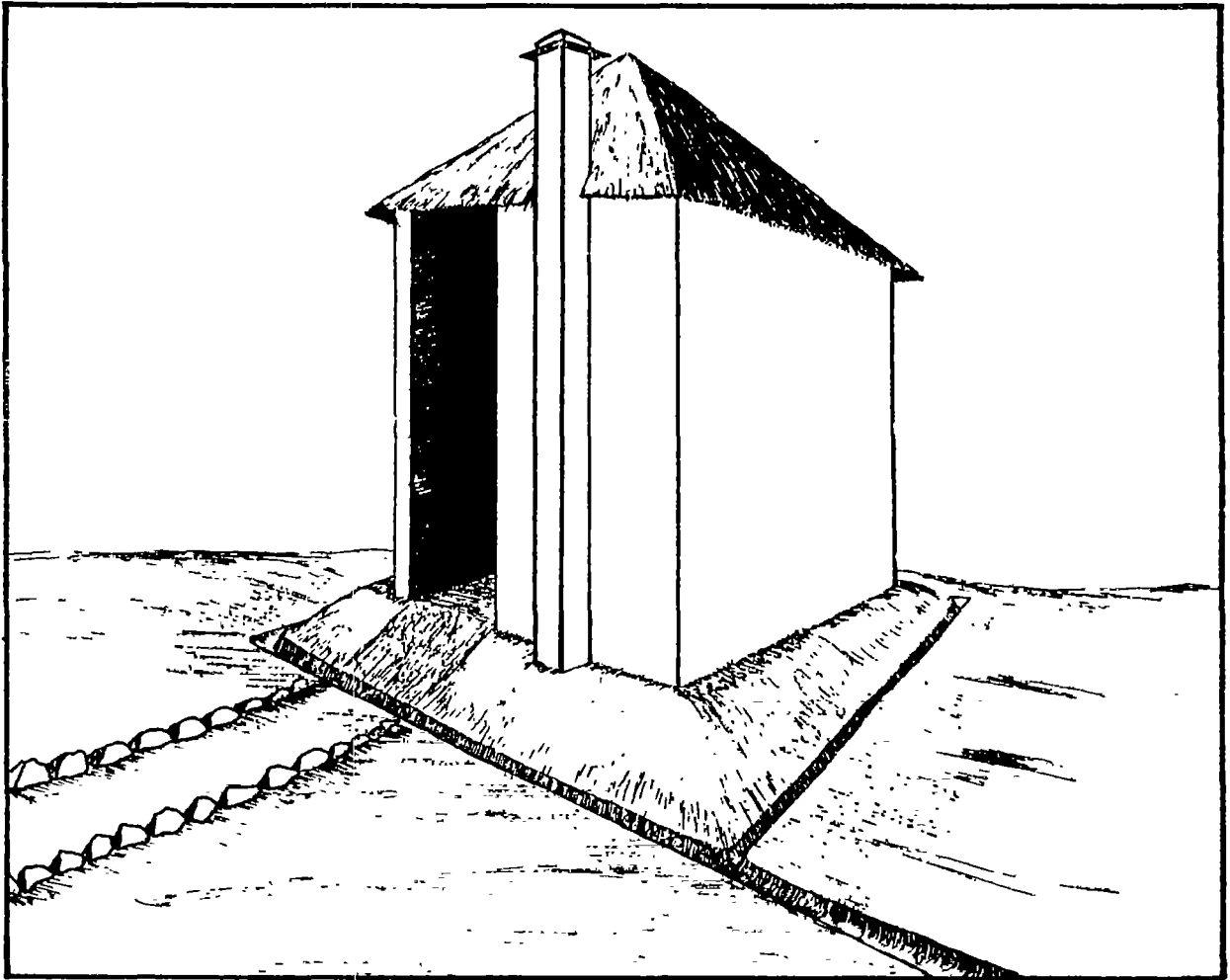
- Cleaning the slab: Sprinkle it with water, then using soap, vim or a disinfectant scrub with a brush pushing all waste into the hole. If

you do not have any soap, etc. the use of water alone is enough.

- Wash or sweep any faeces, insects, cobwebs and dust from the walls and corners of the ceiling.

## *Maintaining a VIP Latrine*

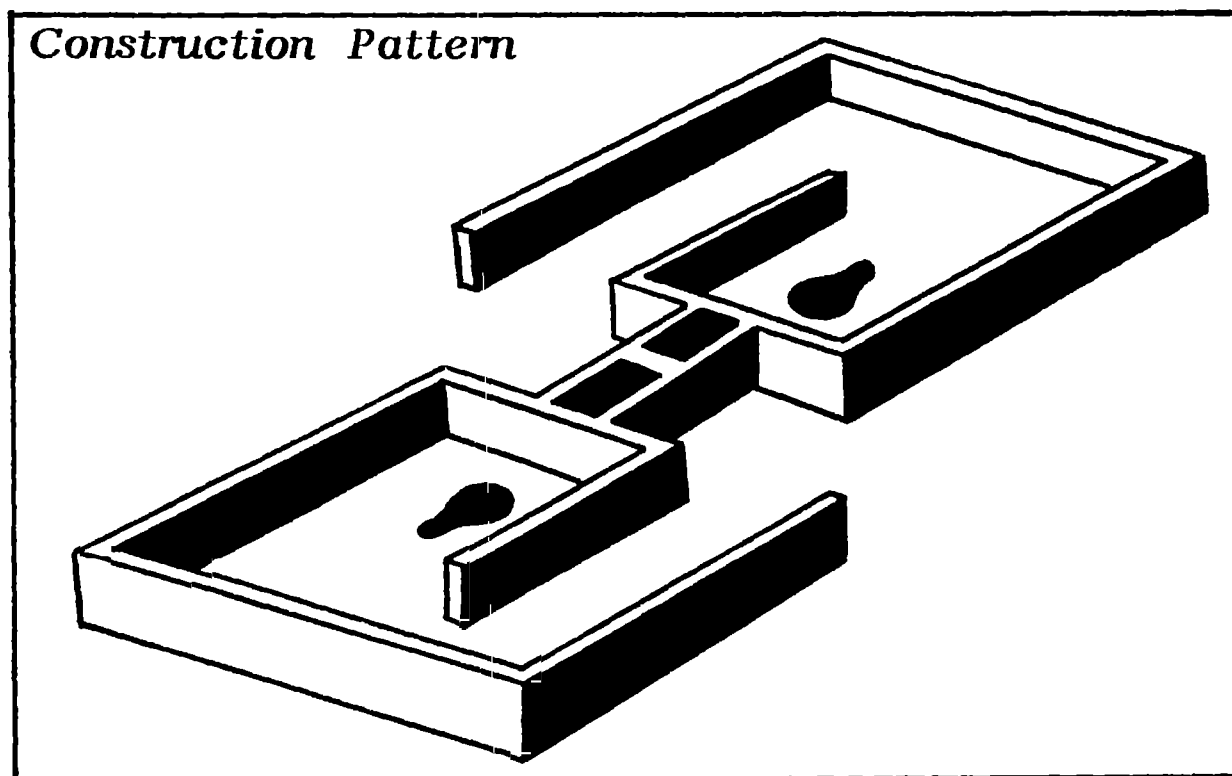
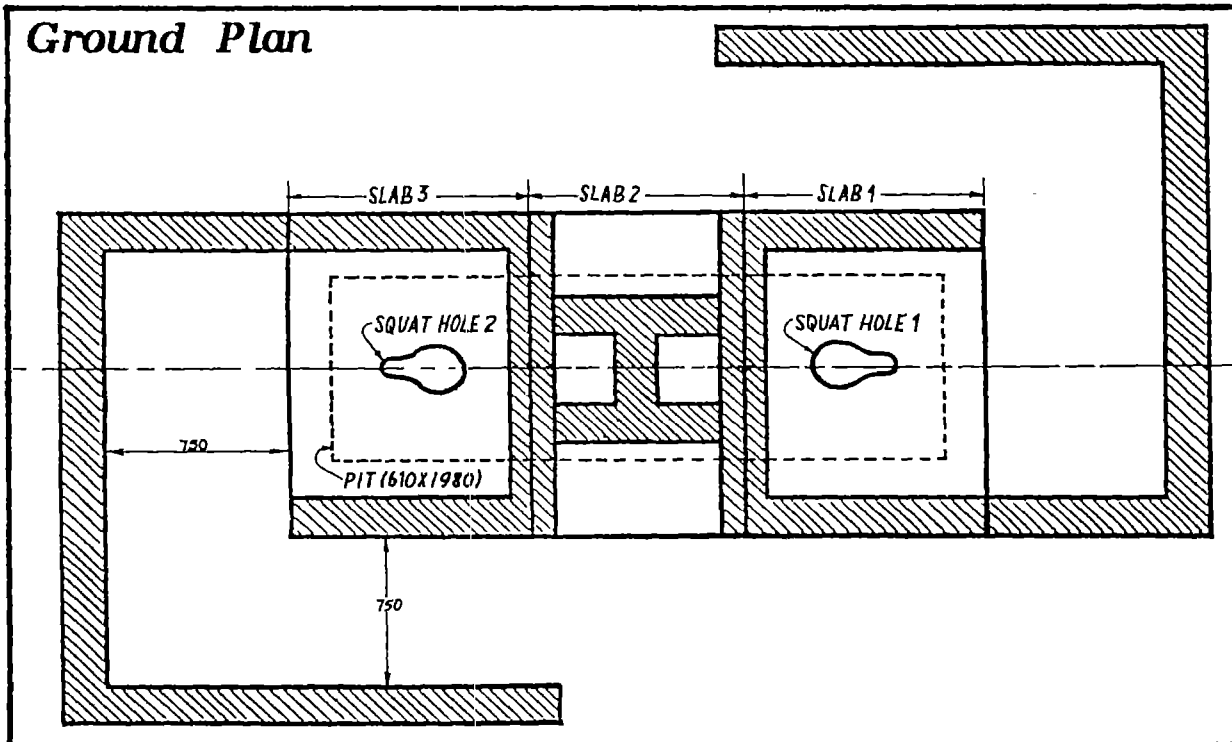
- Trim grass and bushes outside the latrine and sweep around the area.



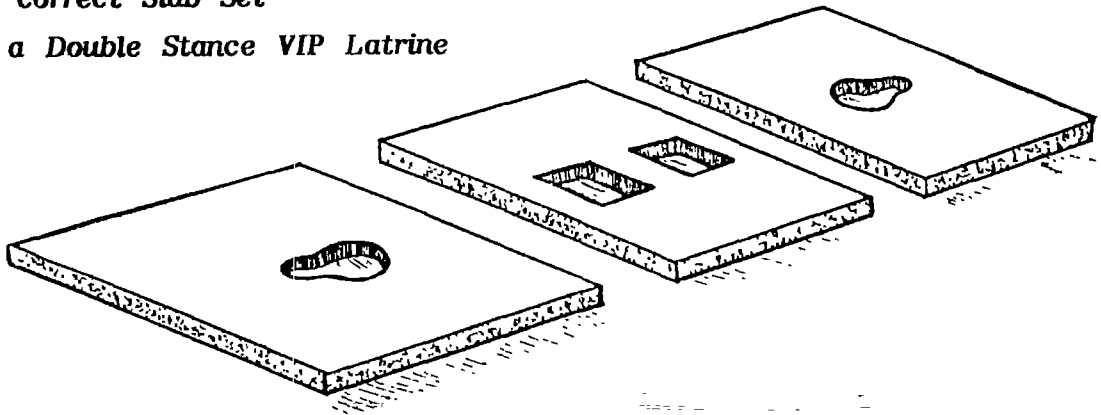
- See that walls, roof, vent pipe and screen as well as the floor are in good repair.
- If the latrine is badly infested with flies you may want to smoke them out with burning banana fibre on a stick or wire.
- Wash your hands.
- Inspect the top of the vent to see if leaves, cobwebs, etc. are not blocking the vent. If cobwebs are found pour a bucket of water down the vent. This should be done at least once every month.
- Monitor the external surface of the vent especially that above the roof, for cracks.

# APPENDIX

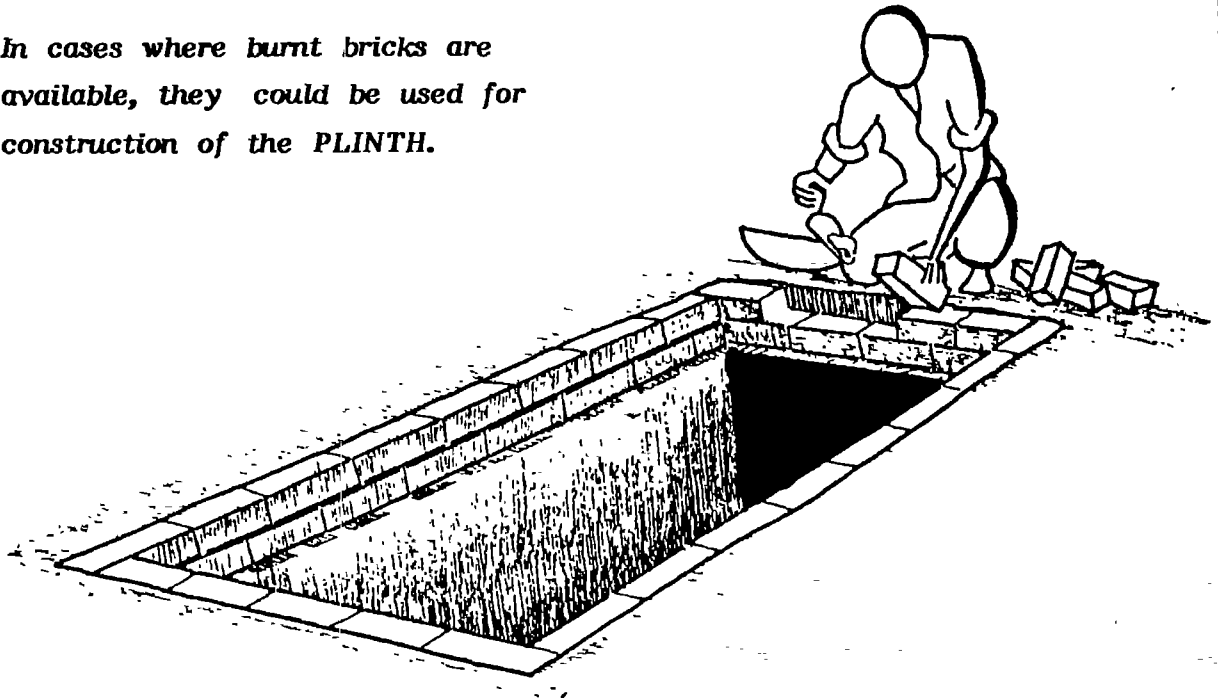
## THE DOUBLE STANCE VIP LATRINE



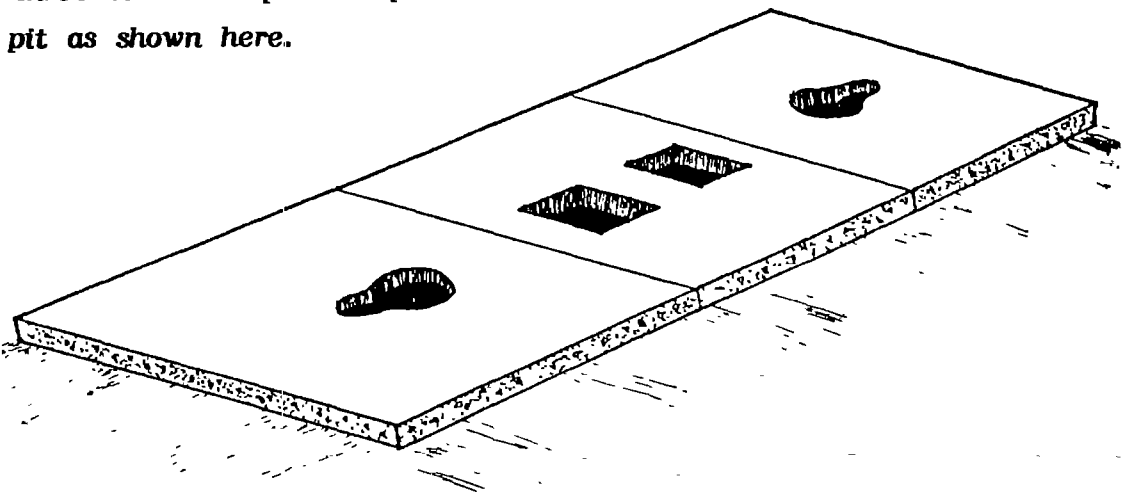
*The correct Slab Set  
for a Double Stance VIP Latrine*



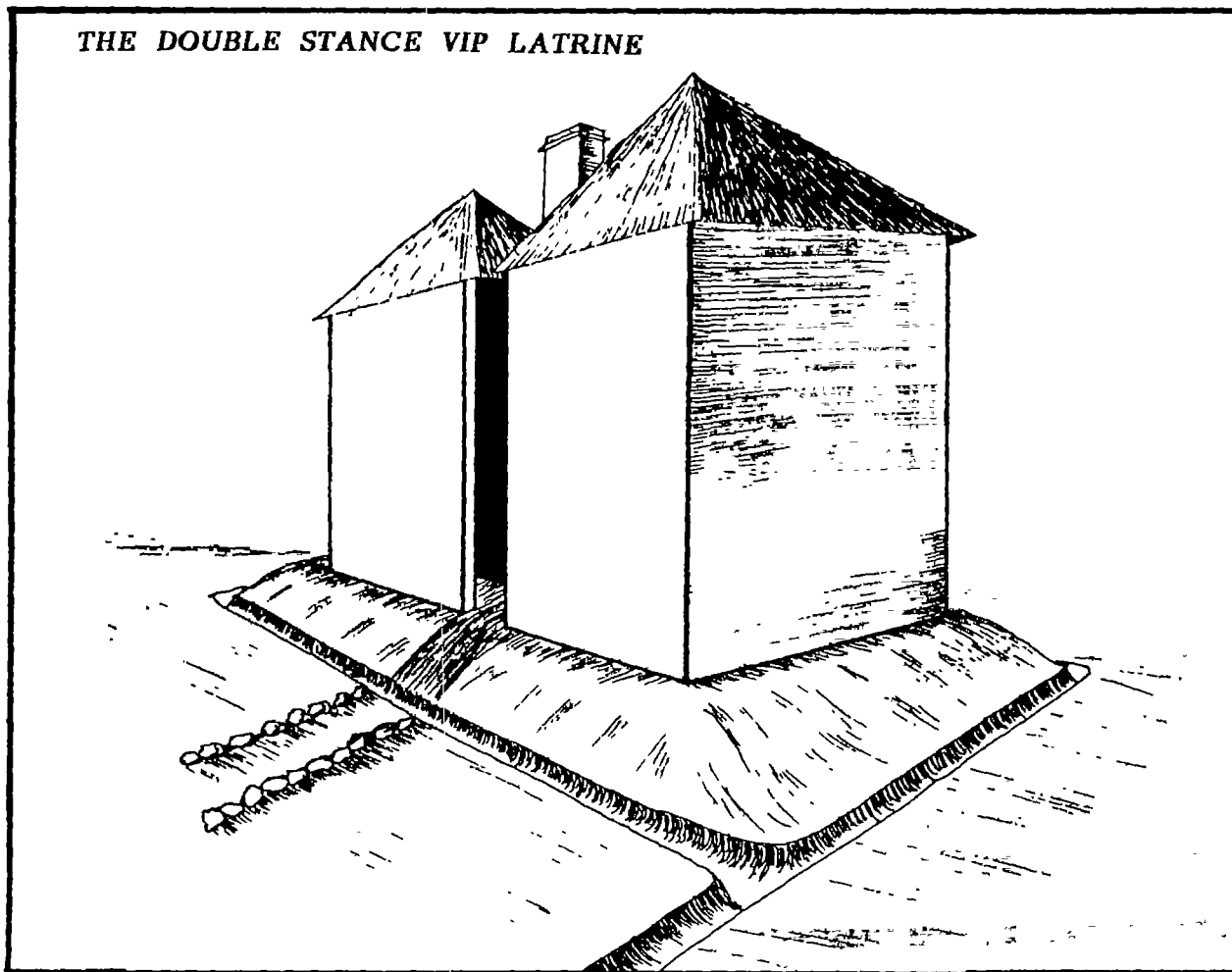
*In cases where burnt bricks are available, they could be used for construction of the PLINTH.*



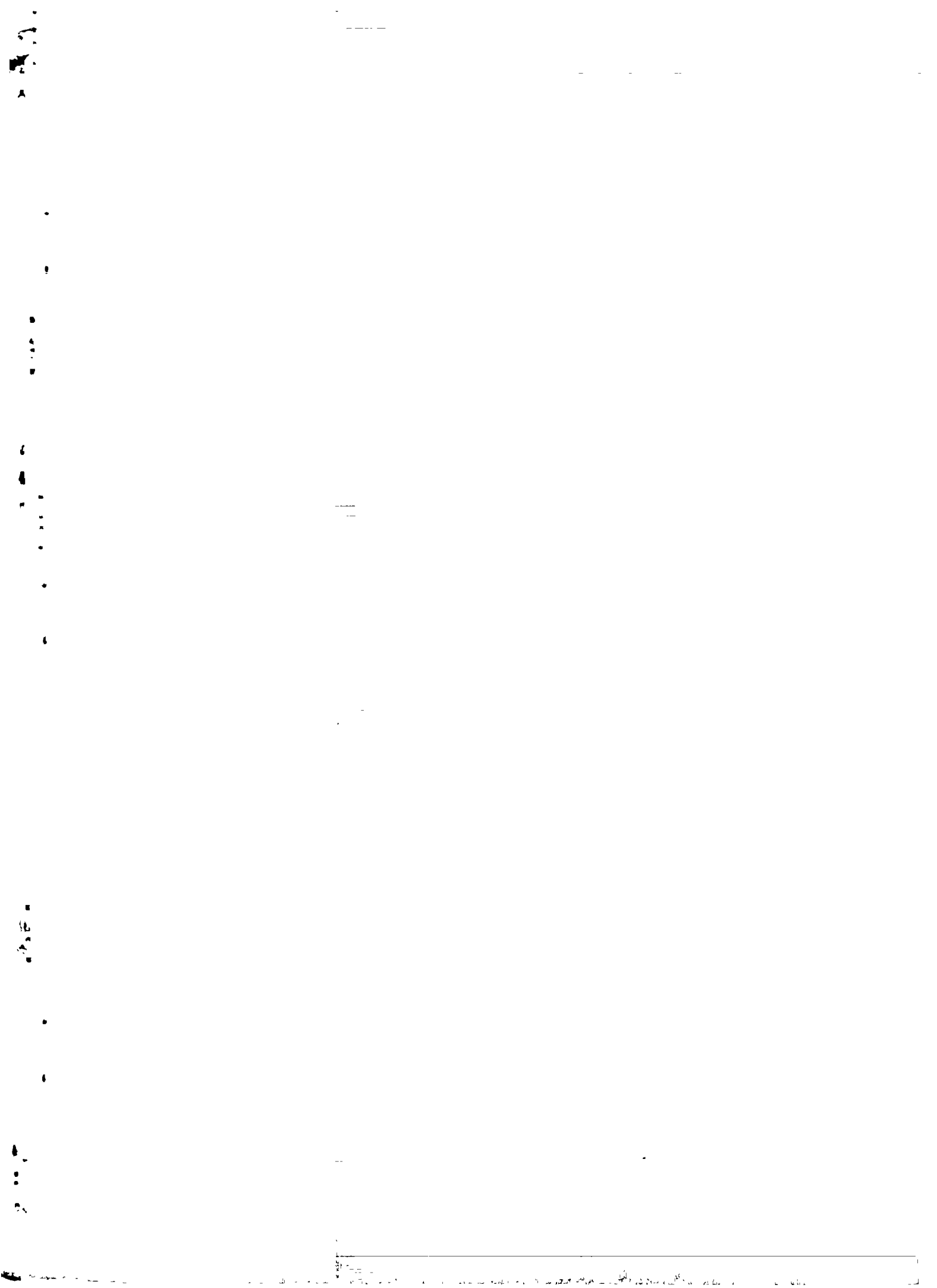
*The three slabs are placed upon  
the pit as shown here.*



THE DOUBLE STANCE VIP LATRINE







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