

Cockroaches are insects which need warm dark places to live. They are found mostly in hospitals, schools, cafes, and stores. Sometimes they are also found in homes. They are very often brought into homes in boxes of groceries bought at the store. Cockroaches usually hide in dark places during the day. At night they come out looking for food. Because cockroaches live around places where disease germs may be, and because they crawl over dishes and food, we should get rid of them.

Cockroaches may be gotten rid of by doing the following things:

1. Spray insecticide around where cockroaches stay in the daytime, and where they travel at night.
2. Do not leave food lying around uncovered.
3. Do not leave garbage in the house where cockroaches can get to it.
4. Do not leave dirty dishes lying around.

Cockroaches may carry the germs of dysentery. They may also carry other diseases from sick persons to well persons because of the dirty places in which they live.

Rats are one of the worst enemies of people. Besides carrying disease, rats destroy property which costs much money. Rats are hard to get rid of because they can live anyplace that people live, and they raise families very fast.

We can get rid of rats in our homes or villages by doing the following things:

1. Don't leave garbage lying around. Put garbage in tight pits.

2. Don't leave trash or refuse lying around the house or village. Rats need food and a place to live just like people. If we don't leave garbage or trash around, rats cannot live.

3. Rats can be trapped. There are also poisons which can be used. Ask your Supervisor about poisons which can be used. Do not use any before you talk to him.

SECTION 3

ISOLATION AND DISEASE BARRIERS

We have learned that disease germs cannot travel by themselves. We know that germs travel from one person to another by water, food, wastes, or insects.

When someone in the family is sick with a disease that travels by these things, the doctor or nurse tells us we should "isolate" this person. By this we mean that the sick person should be put in another room, away from other people. Isolation also means that the sick person should not visit with anyone but the person who takes care of him. It also means that he should have his own plate, spoon, and knife to eat with while he is sick. When we isolate a person we stop germs from traveling from a sick person to a well person.

When we isolate a sick person we stop sickness from traveling from a sick person to a healthy person by putting him in a room by himself.

By putting the sick person in another room we make a "barrier" against germs. A barrier is something that separates one thing from another. It is like a break water for a harbor. When we build a break water we stop the high seas from getting into the harbor. A disease barrier is a wall against germs. These are some barriers that keep germs from traveling from one person to another:

<u>Barrier</u>	<u>What it does</u>
Privies	Keep germs in one place so they cannot travel to other people.

<u>Barrier</u>	<u>What it does</u>
Water Barrel Covers	Keep germs out of water so they cannot travel into our bodies.
Screens on houses	Keep flies out of our houses so that germs cannot travel from the flies to our food and then into our stomachs.
Sunshine	Kills germs
Chlorine (Clorax, Purex)	Kills germs
Boiling Water	Kills germs
Fire	Kills germs
Soap and Hot Water	Kills germs
Distance (Isolation)	Germs cannot travel by themselves
Trails away from water supply	Germs cannot wash into water supply.
Garbage buried in pits	Keeps germs in one place
Clean hands and body	Washing kills germs
Covering coughs and sneezes	Germs wont travel in the air to a well person.

SECTION 4
PERSONAL SANITATION

Sanitation and your health and happiness

People who are well and strong, are happy people. The sick person is not happy. If we are going to teach people to be sanitary then we must do the things we tell other people to do. If the Sanitation Aide doesn't do these things, then we cannot expect the village to do them. If we believe the things we have learned in school and in this Guide, then we should show other people by being sanitary ourselves.

The Sanitation Aide meets and talks to many people. While teaching others to be sanitary he goes into the homes of many people. It is important that he protect himself by being sanitary and set an example for others.

These are things the Sanitation Aide should do to protect himself and his family:

1. He should wash his hands often with soap and hot water.
2. He should keep his hands away from his lips, eyes, and nose until he has washed them.
3. When around sick people he should be careful about touching things the sick person uses.
4. He should not use other people's bedding or clothes unless he knows they are clean.
5. He should be careful of what he eats and drinks.
6. At least once each year the Sanitation Aide should have a T.B. test.

Practicing Sanitation away from your own village

This may be hard to do sometimes. If people do not understand why you like to drink clean water or eat clean food, then they may laugh at you. You can help these people by telling them why you are being careful of the things you eat and the water you drink. Here are some ways you can be sanitary and protect your health when you are away from home:

1. If you are not going to be gone long, you can carry your drinking water with you. You may also boil your water or you may carry chlorine tablets or iodine tablets to put in your drinking water.
2. If you have to use snow, ice, or rain for your drinking water, follow the rules in the Guide book.
3. Bury or cover your body wastes in the same way you would in your own village.

SECTION 5

GENERAL GUIDES FOR SANITATION AIDES

The Personal Actions of Sanitation Aides in the Village are very important. When a person has a job with the Health Department, people think he should do those things he talks about. When we work with the government, people are always watching to see what we do. A Sanitation Aide should always do the following things on or off the job:

1. He should always be polite.
2. He should always be neat and clean. A person does not need to wear fancy clothes, but he should keep those he has clean.
3. A Sanitation Aide's hands, face, and fingernails should be clean.
4. A Sanitation Aide should have a good water barrel, a good garbage pit, and other things that he says other people should have.
5. The Sanitation Aide should not argue or get into fights with the council, the school or other people he works with. It is very hard to get anything done when people get mad.

personal = what one person does or says, how he acts.

Learning more about Sanitation is like learning more about any kind of job. The man who repairs radios or boat motors must learn new things about his job. The Sanitation Aide should try to learn more about his job too. One of the best ways to learn more about sanitation is to read books or magazines on sanitation. Your sanitation Supervisor can also teach you more. A good way to do would be to write down questions you want to ask the next time he visits your village.

Another way you might learn more about your work is to ask the sanitation Supervisor to send you magazines or books he might have.

There are also many films which you may use to learn more about sanitation and which you may show to people in the village.

You might also order books from a library. Your sanitation Supervisor might help you to order books.

If your village has a school or hospital, you may find books or magazines on sanitation. Ask your supervisor to get a dictionary for you. When you find words in books you do not understand, look them up.

Doctors and nurses can help you to understand some things about sanitation. Get to know these people well. They can help you in many ways.

Working with the Council is very important in Sanitation.

If one man tried to build a whole village it would take him many years or maybe his whole life. The Sanitation Aide cannot make a village sanitary by himself. It is very important that the Sanitation Aide should ask the Council for their help. To get their help the Aide should be sure that the Council knows why sanitation is important. Most councils will help the Aide if they understand what he is doing. The best way to get the council to help you is to go to their meetings and explain what you are doing and why you are doing it. You can also talk to council members when they are not in a meeting.

Working with individuals is one of the most common ways the Sanitation Aide gets his work done. Sometimes it takes a long time to make a person or family understand why it is better to be sanitary. Sometimes a person will understand what you are trying to do quickly. One of the most usual ways that the sanitation Aide works with an individual is by meeting him on the trail, or the village street, or visiting him in his home. The sanitation Aide who talks to individuals wherever he is does not waste his time. Most of sanitation work is done by talking to people.

individual = one person, one man or woman

The Supervisor can help you in many ways. He is the man you write or talk to when you need help or advice with your work. The Supervisor has been trained in sanitation. He was hired by the Health Department because he knows what to do. These are some of the things the Supervisor can help you with:

1. He can visit your village and talk with you about what should be done to make the village sanitary. He can help you decide what should be done first.
2. He can help you talk to your council, school, mother's club, and other people.
3. He can get the things you need to work with (pencils, paper, tools, books, etc.)
4. If you have a hard time getting the village to do things about sanitation, your Supervisor may be able to help you.
5. He can show you how to make reports, write letters, or fill out survey cards. Always write or talk to your Supervisor about things you do not understand or do not know how to do.
6. Remember, that the Supervisor cannot do the job himself. It is up to you and your village to start and finish a job.

You can help the Supervisor by telling him what is happening in your village. If the Supervisor does not know what you are doing he cannot help you. You should tell the Supervisor what you are doing, when you are doing it, and how you are doing it. Most of all, you should tell your Supervisor about your problems.

You can help the Supervisor by doing these things:

1. When he gives you a job to do, do it as soon as you can, and as well as you can.
2. If you don't understand what the Supervisor wants, or is talking about, ask him to tell you what he wants again.
3. Send your reports in on time. It is important that you do this. If you don't send these reports to the supervisor when he wants them, he can't send his reports to the Regional Office. Here is a picture that shows how your reports travel from your village to the Central Office in Juneau:



You can see that your reports and letters travel a long way. It takes a long time for your reports to travel from where you live to Juneau. That is why it is important for you to send your reports when the Supervisor tells you to.

Your work in the village will be showing people how to be sanitary and why to be sanitary. This Guide teaches you these things. Your job in the village is to teach what you have learned to the people in the village. Very often people will not want to be sanitary because they may be superstitious, or they may not want to change the way they do things. Some people are lazy and some people think being sanitary is wrong. Your job in the village is to show these people why it is not wrong and how sanitation will help them. It is not your job to do these things for people. People in the village should build their own privies, water barrels, and garbage pits. It is good for you to build a privy, or water barrel and garbage pit to use for your family. People will then see that you believe in sanitation and can see how you do it. It is your job to show people in the village how to do these things.

superstitious = believing in charms, signs

The Village can help you if the Council understands what sanitation is. The Council can help you by making sanitation rules or by asking people in the village to be sanitary with their wastes, water, and other things. It is important for you to work with the Council. The Council can help the whole village to be sanitary.

Your work with the school teacher and other government people is important if a good job in sanitation is done. Sanitation is a big job. It can be made easier if many people help.

When doctors or nurses come to your village you can help them by finding people they want to see or telling them things about the village they may want to know. You can tell the nurses or doctor who is sick in the village. The nurse is interested in sanitation because if a village is sanitary there will be less sickness. The nurse or doctor can also help you by telling you about sickness. Nurses and doctors can answer some of the questions you may have about sickness.

Other people you work with are health educators, school teachers, and the churches. In sanitation work we work with many people who can help us. The school teacher knows many people. He can talk to these people about sanitation. He can also help you in other ways. You may be able to use the school for movies or meetings.

Churches may also help you in your sanitation work. Churches want to see people healthy and happy. Talk to the ministers and tell them what you are doing. The important thing to remember is that you are on a team like football, baseball, or basketball. Your team is sanitation and many people work with you to win.

SECTION 6

TYPES OF WATER SUPPLIES AND HOW
TO KEEP THEM SAFE

Drilled Wells are usually found when water is too far under the ground to dig or drive a well. Sometimes a well is drilled through rock to get to the water. A drilled well has a casing and a drop pipe inside the casing to get water out of the well. A drilling machine called a "well rig" is used to drill a well. A drilled well costs more than other kinds of wells. It costs about \$15.00 a foot for a drilled well.

If your village has a well drilled, these are the things they should do:

1. Drill the well on high ground so that when the snow melts or it rains, water will run away from the well.
2. Do not drill the well near privies, cess pools, or septic tanks. The well should not be closer than 200 feet to any of these things.
3. After the well is drilled and the pump is ready to work, an insulated house should be built around the well.
4. A floor should be put in the pump house. The floor should be sloped so that if the pump leaks, or the roof of the pump house leaks, water will run away from the well.
5. A lock should be put on the pump house door. This is done so that children will not play in the pump house and get hurt.

6. When all the work has been done upon the well and pump house, dirt should be packed around the pump house so that water will run away. It is not good for water to stand around the well. If the village is near a river where there is gravel or small rocks, put these on top of the dirt around the pump house. This will help keep the dirt from washing or blowing away.

7. The well should be where everyone in the village can get the water easily.

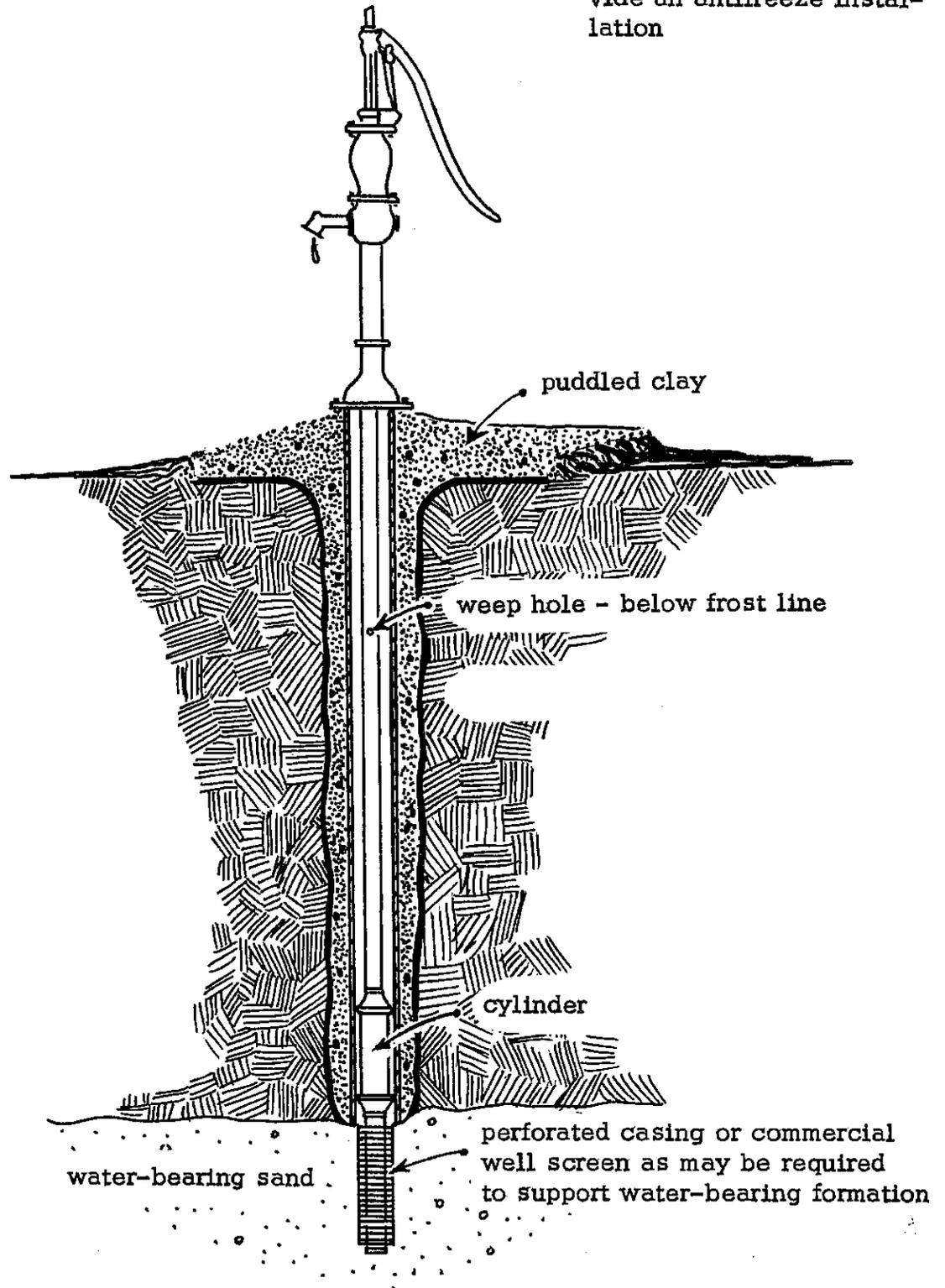
8. A drilled well is very often the best kind of well because water comes from deeper in the ground. Water that is close to the top of the ground can get germs in it easier than water that is deeper in the ground. To see how to keep water in the drilled well safe from germs, study the picture of a drilled well in the Guide.

DRILLED WELL

1. Pump stand and base must be in one piece or joined by threaded connection

2. Cylinder to be placed below point of maximum draw-down

3. Weep hole to be placed below frost depth to provide an antifreeze installation

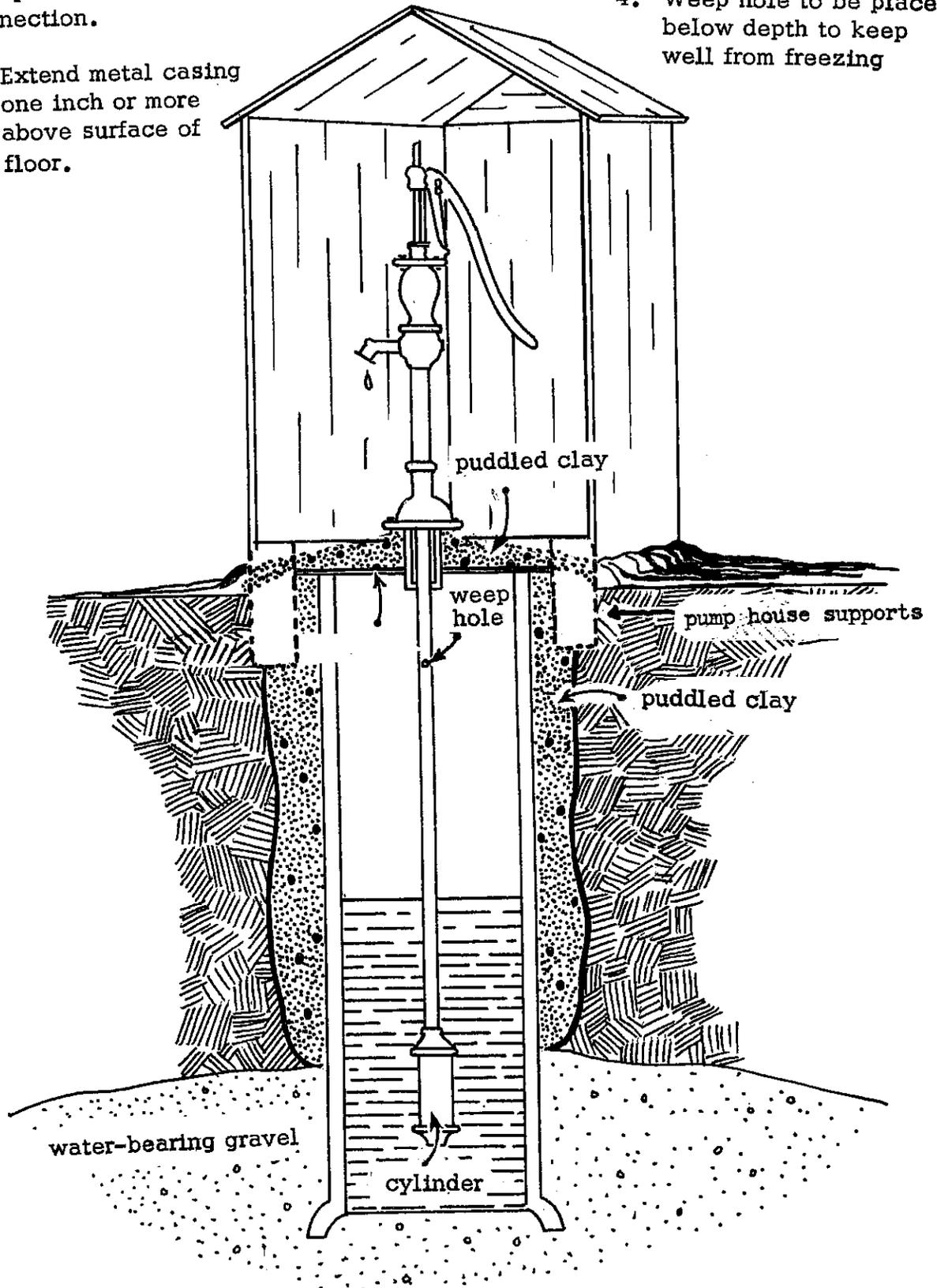


Dug Wells are usually found where water is not far under the ground. When a village or person digs a well, the same rules should be followed that are used for a drilled well. It is more important to follow these rules with a dug well because the water can get germs in it easier than a drilled well can. The drawings show how a dug well is built and different ways to do it.

DUG WELL

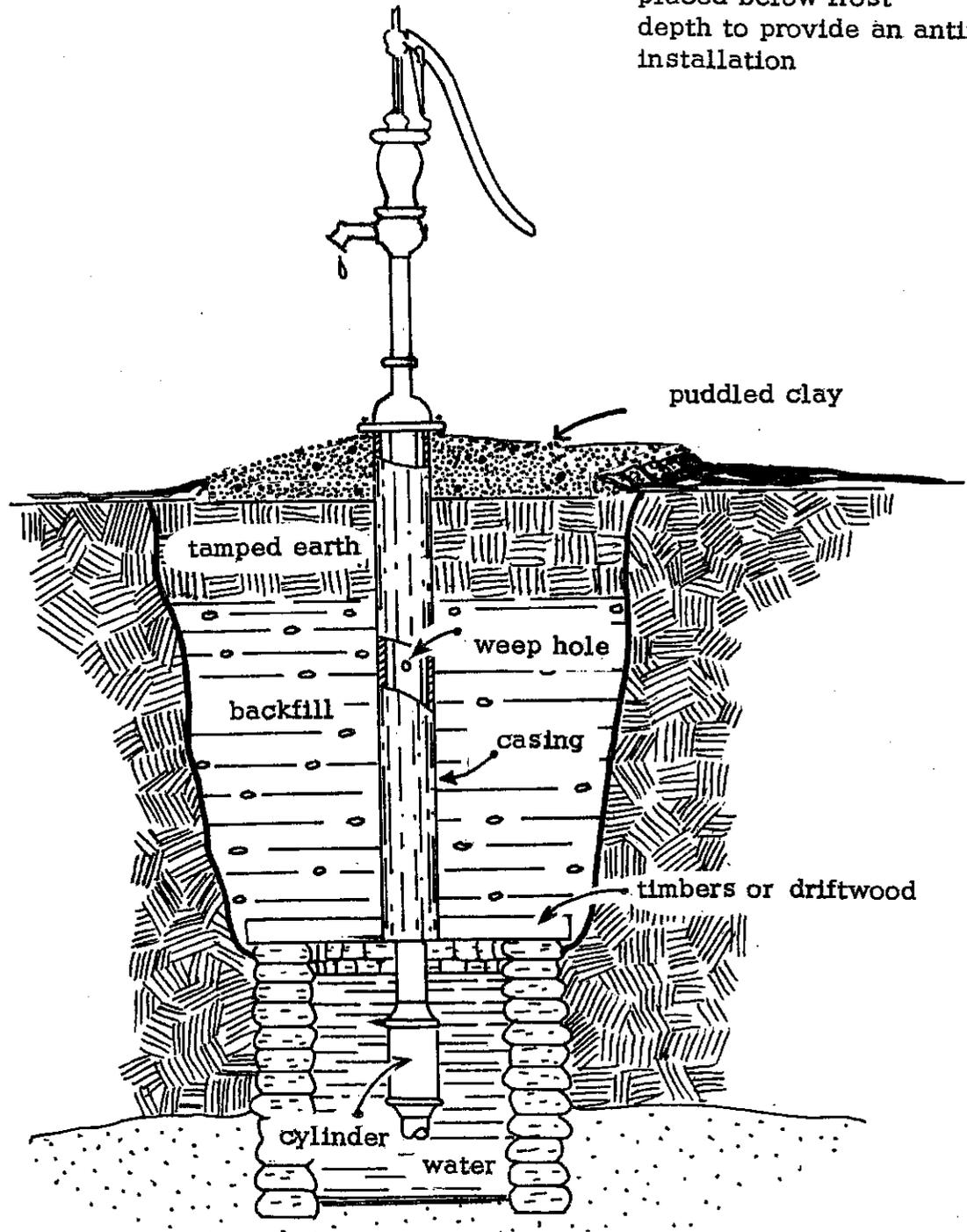
1. Pump stand and base must be in one piece or joined by threaded connection.
2. Extend metal casing one inch or more above surface of floor.

3. Cylinder to be below maximum drawdown
4. Weep hole to be placed below depth to keep well from freezing



BURIED SLAB DUG WELL

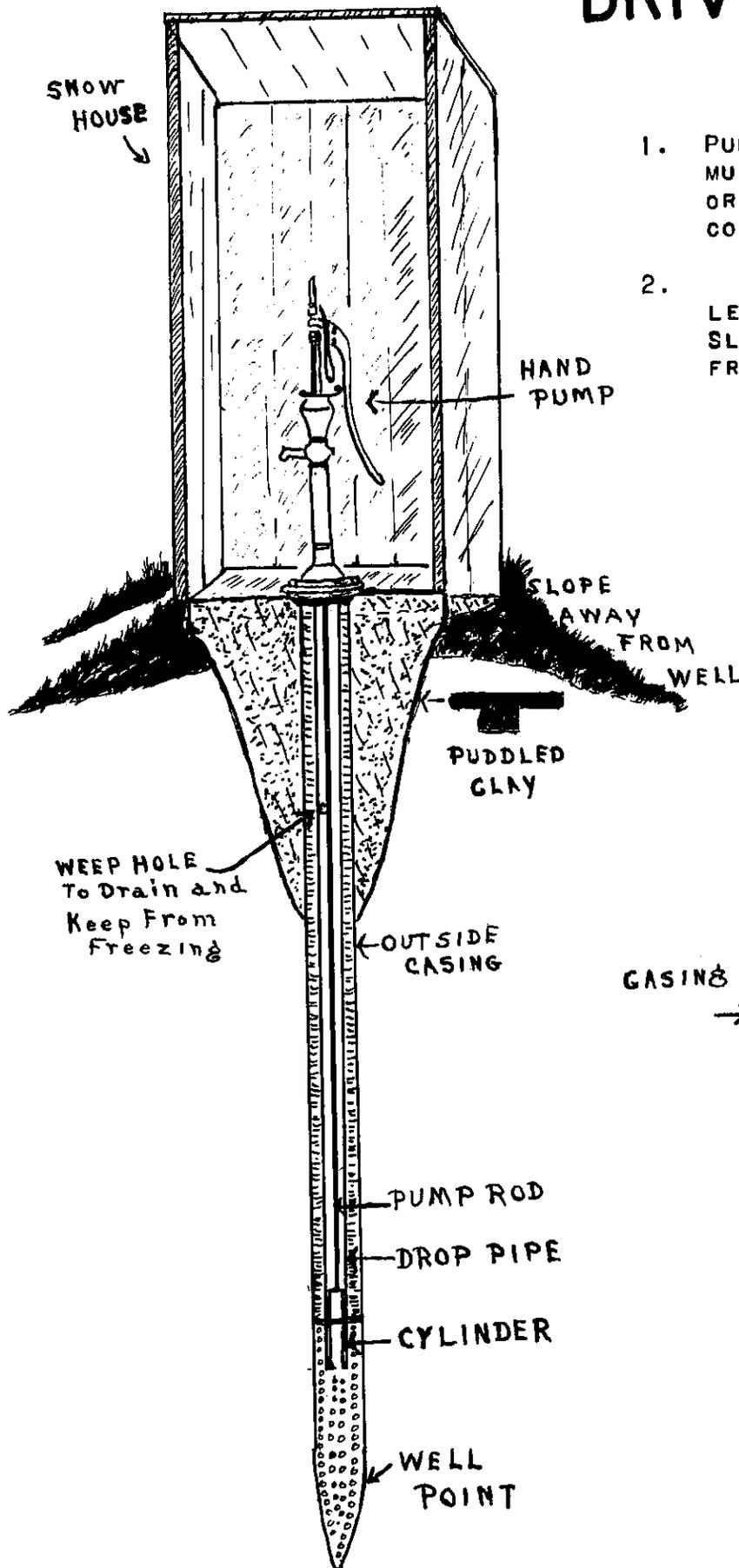
1. Pump stand and base must be in one piece or joined by threaded connection
2. Cylinder to be placed below point of maximum draw-down
3. Weep hole to be placed below frost depth to provide an antifreeze installation



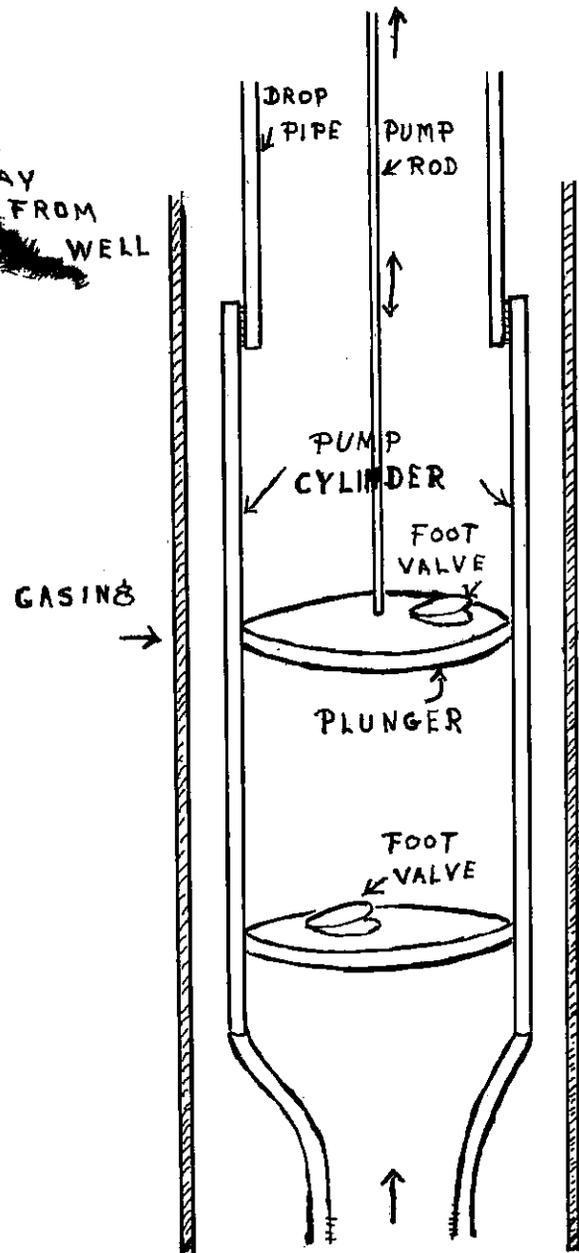
Driven Wells are used when water is not too far beneath the surface of the ground and where we do not have to go through rock. Driven wells are easily made and do not cost much. Driven wells are a good type of well for families. Use the same rules with a driven well that we use for other kinds of wells to keep the water safe.

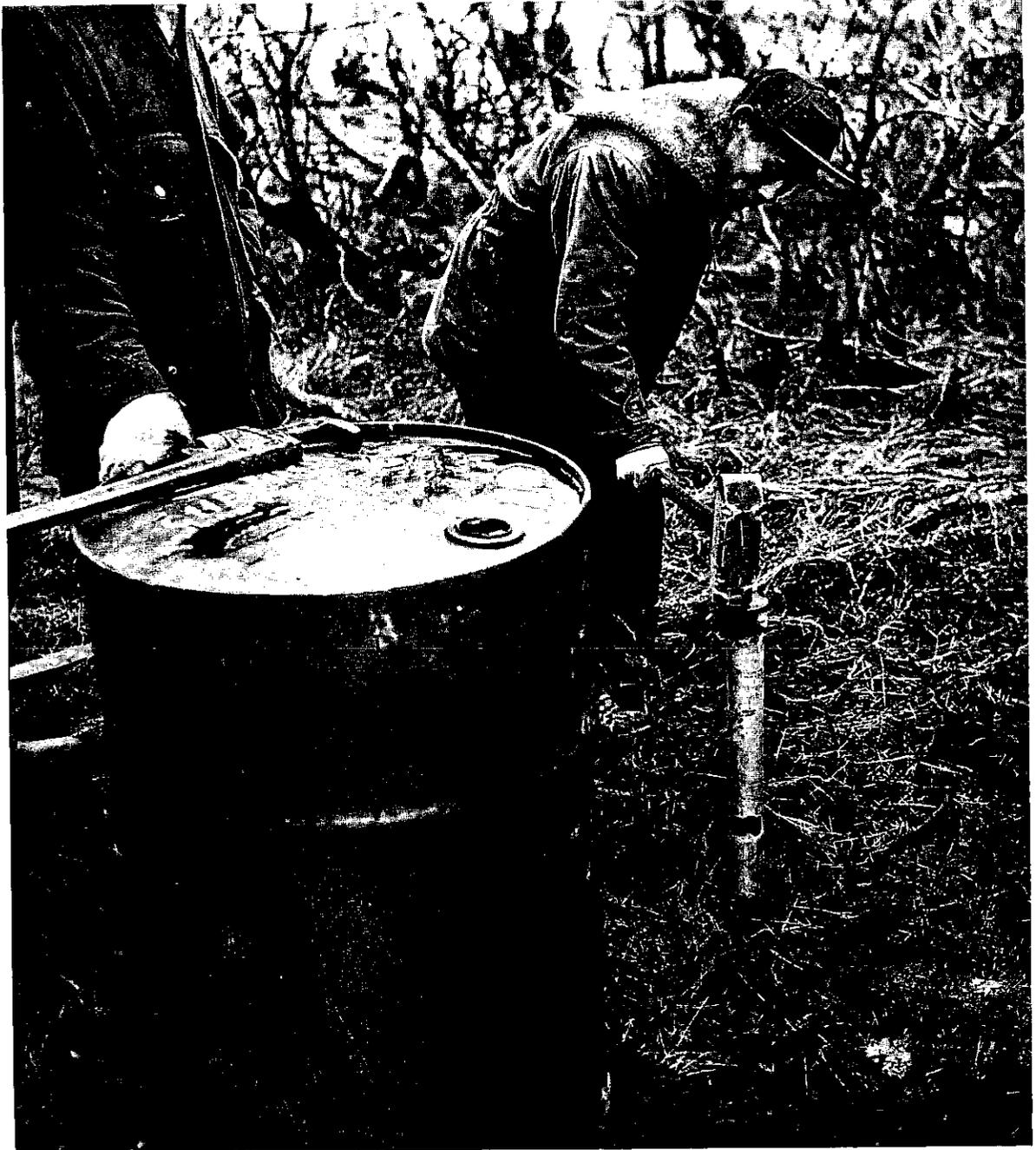
The pictures show how a driven well is made.

DRIVEN WELL



1. PUMP STAND AND BASE MUST BE IN ONE PIECE OR JOINED BY THREADED CONNECTION.
2. PLATFORM AT LEAST 4 FEET SQUARE. SLOPE TO DRAIN AWAY FROM PUMP.





DRIVING WELL POINT WITH HAMMER.

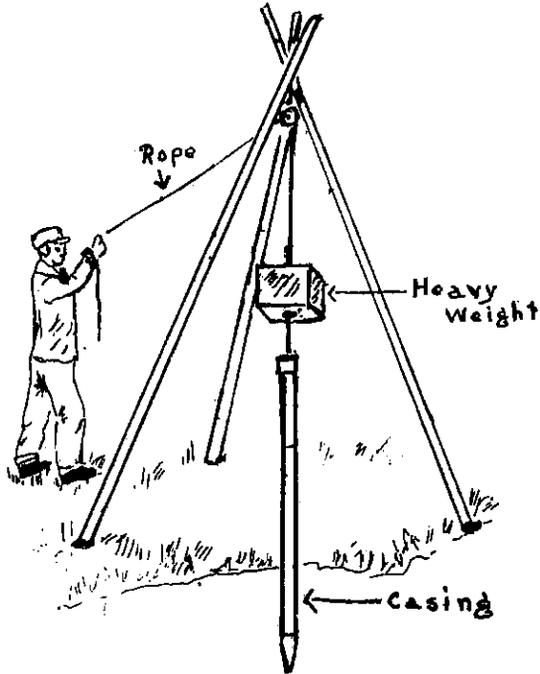
Jetted Wells are made by pumping water through a pipe. The water digs a hole in the ground. Dirt is forced out of the hole by the water. Sometimes jetted wells can be made quite deep. You cannot go through rock with a jetted well, however. A jetted well can be made through permafrost. We may jet a well if water is not too far under the ground. It takes more tools or machinery to jet a well than to drive a well. A jetted well should have a casing at least ten feet long going into the well to keep out water that is near the top of the ground.

The same rules are used to keep water safe in a jetted well that are used for a drilled well. The drawing shows how a jetted well is made.

forced = to make come out - to make some one or something do a thing.

BUILDING A WELL

I. DRIVEN

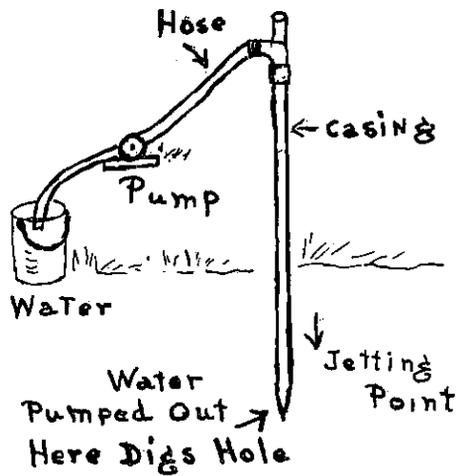


METHOD 1

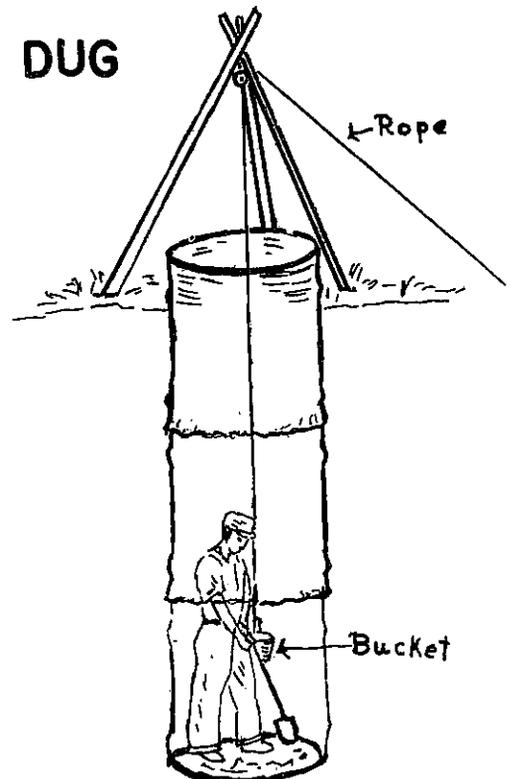


METHOD 2

2. JETTED



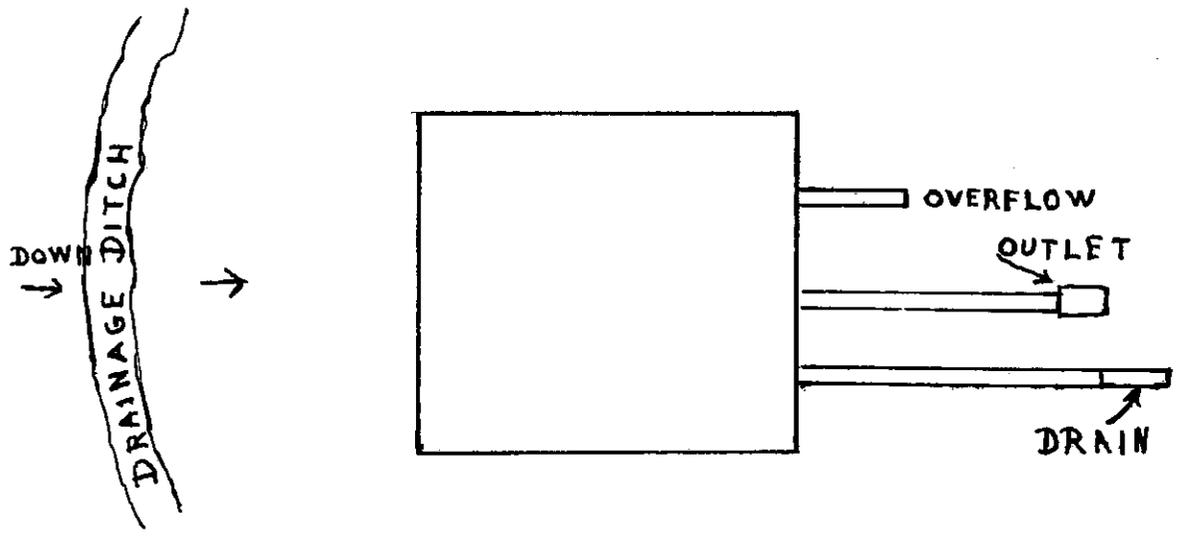
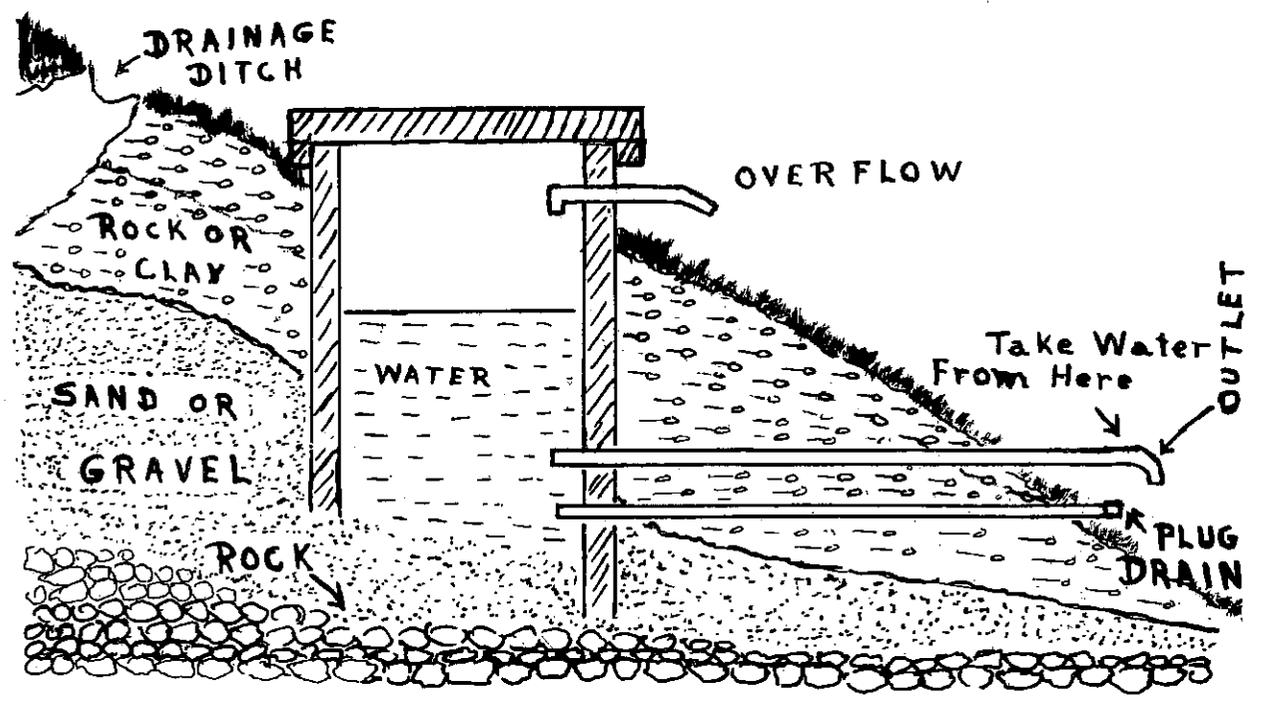
3. DUG



Springs are one of the cheapest and best ways to get water if they are near the village or our home. Usually, the water in springs flows a long ways under ground. Sometimes it does not, however, If there is a spring that you want to use for a water supply, you should do the following things:

1. Find out where the water is coming from. If the water in the spring comes from a ditch not far off, it is not good. If the water in the spring has come from far off, the water will be good. The water is good because when it goes through the ground a long ways, the bad germs are taken out of the water by the ground.
2. A box should be built around the spring. This box should be made out of cement if you can get it. The box should have a lid and a pipe for the water to flow out of the box when we are not taking water out of it. There should also be a pipe in the box that is to be used for filling buckets and barrels. It is important to have an overflow pipe because the box may fill up and break or the water may find another way to reach the surface of the ground. A plug drain should also be put below the outlet pipe.
3. After the box has been built, and the pipe put in, the spring should be covered with earth.
4. After the spring has been covered, a ditch should be dug above the spring to carry rain or snow water around the spring. A ditch will stop water from running over the top of the spring.

HOW TO FIX A SPRING FOR WATER SUPPLY

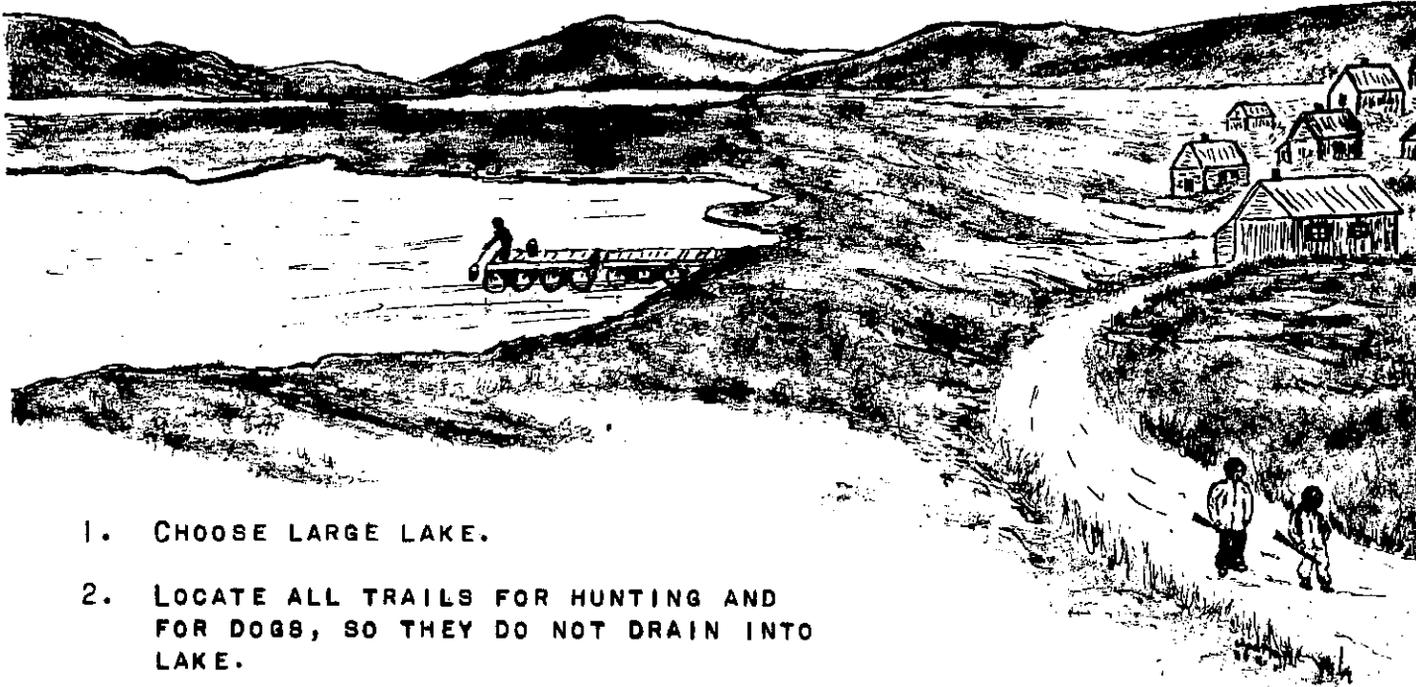


It is important to do the above things because springs may be made unsafe if people dip with their buckets, if rain water washes dirt into them or if animals drink from them. The drawing shows how a spring can be made safe to drink from.

Lakes are sometimes used for drinking water. It is better to have a well or spring. If we do not have a well or spring, and must use water from a lake, these are the things to do and these are the things you should teach other people:

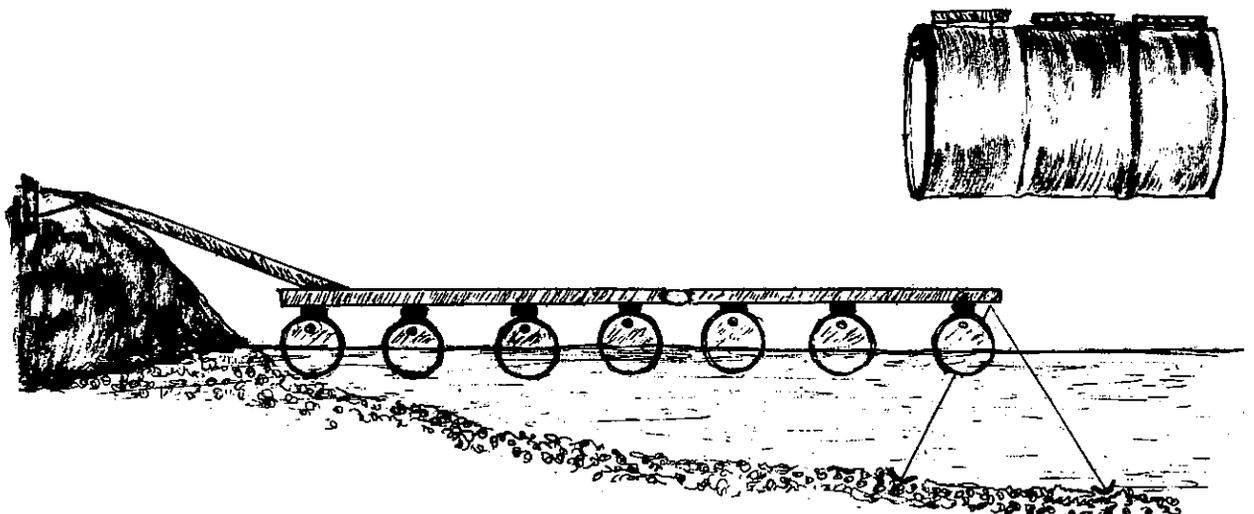
1. We should be sure the dog team track and hunting trails do not go near the lake. If these are near the lake, rains or melting snow will wash dog wastes or human wastes into the water.
2. Loose dogs should not go near the lake.
3. Children should not play near the lake.
4. Water should be gotten near the middle of the lake. The water is cleaner in the middle of the lake. This may be done by building a platform or dock into the lake.
5. Use clean buckets or pans to get water. Do not use them for anything else.
6. Do not dump garbage or trash on the lake ice during the winter.
7. Boil or use chlorine in the lake water. This will kill any germs that may be in the water.

GETTING WATER FROM LAKES AND PONDS



1. CHOOSE LARGE LAKE.
2. LOCATE ALL TRAILS FOR HUNTING AND FOR DOGS, SO THEY DO NOT DRAIN INTO LAKE.
3. YOU CAN GET CLEANER WATER BY BUILDING A DOCK OUT 10 OR 15 FEET INTO LAKE. YOU GET WATER FROM END OF THE DOCK.
4. ALWAYS BOIL OR CHLORINATE WATER YOU GET FROM A LAKE, IF YOU DRINK IT OR COOK WITH IT.

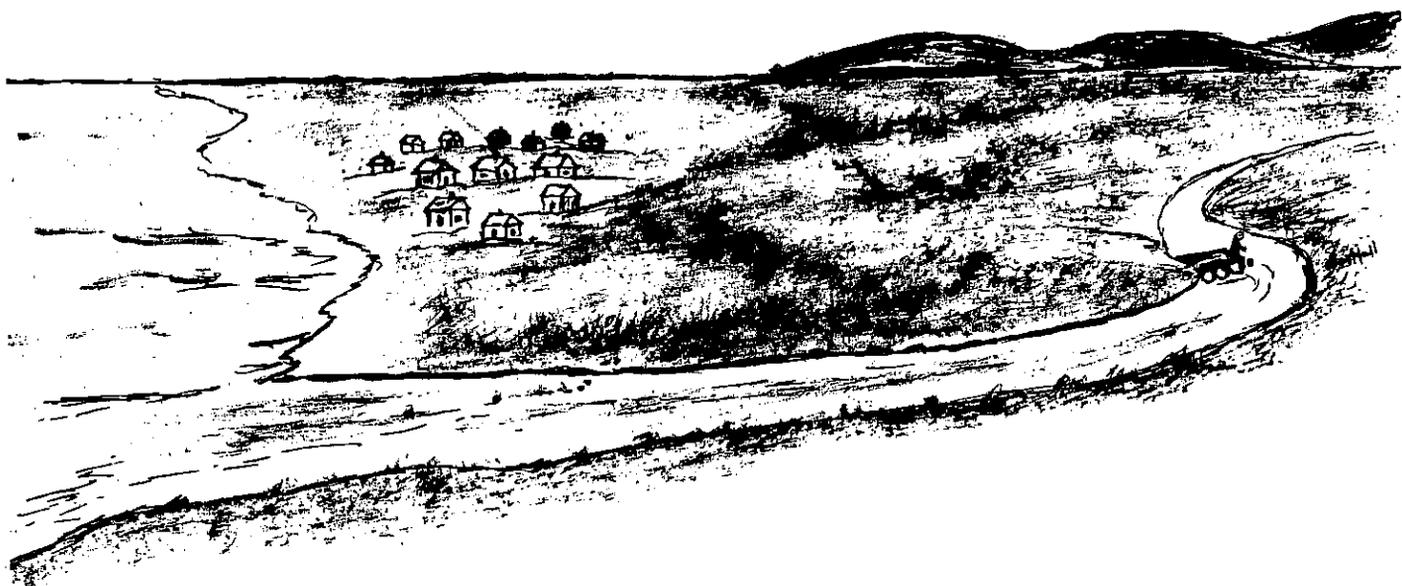
OIL DRUM FLOAT



Rivers are very often used for village water supplies. Rivers or streams should not be used for drinking water or cooking unless there is no other place to get water. We have learned why this is true in other parts of the Guide. Rain washes dirt, human wastes, and trash into streams and rivers. Germs may be carried for many miles this way and can make people sick. If people can get water from no other place, these are the things the Sanitarian Aide should teach the village:

1. If the water is muddy or dirty, settle the water in a barrel or bucket for awhile. After the water is clear, put it in a clean bucket or barrel.
2. Boil or chlorinate (Purex, Clorax, etc.) the water that has settled before it is used. If water is clear it will take less chlorine to kill the germs.
3. Always get water above the village.
4. Do not throw human waste, garbage, or trash into the stream or river. Villagers below you may have to use the water for drinking.
5. It is better to get water away from the shore of lakes. It is also better to get water away from the bank of the river or stream. Water may be cleaner away from the bank. The drawing shows how this may be done.

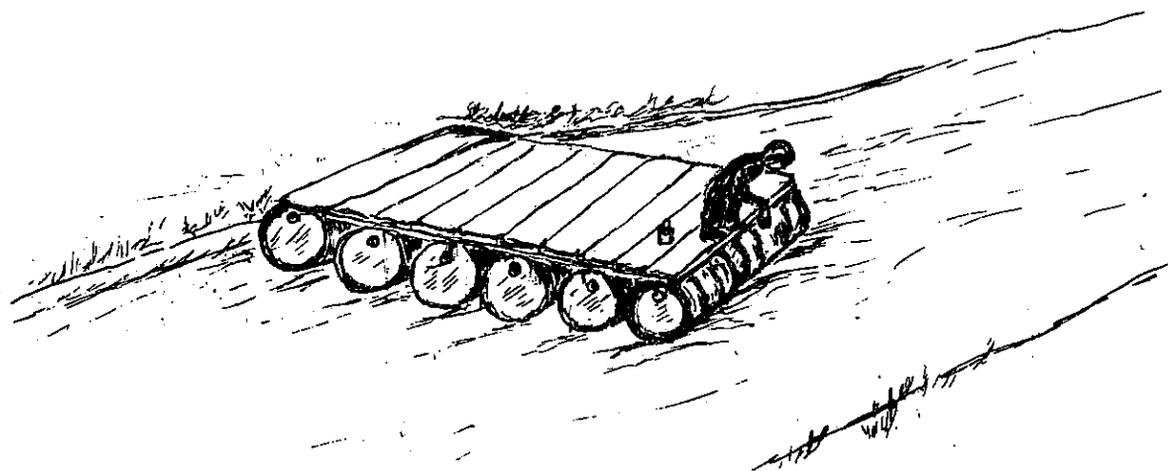
GETTING WATER FROM A RIVER OR A STREAM



DO NOT USE RIVER WATER UNLESS YOU CANNOT GET WATER FROM ANY OTHER SOURCE.

IF YOU HAVE TO GET WATER FROM A STREAM, DO THESE THINGS:

- 1. GET WATER FROM UPSTREAM FROM THE VILLAGE OR FISH CAMP.**
- 2. GET WATER FROM CENTER OF THE RIVER. YOU CAN GET IT BY BOAT OR BUILD A DOCK AND GET IT FROM THE END OF DOCK.**
- 3. ALWAYS BOIL OR CHLORINATE WATER FROM A RIVER OR STREAM.**



Rain water is the best kind of water if the people do not have wells or springs. Rain water can be very dirty and not good to drink or cook with if it is not collected or stored in the right way. When rain falls out of the sky it is clean. If it falls on dirty roofs or is collected in dirty barrels or buckets, then the rain water is not clean. People can collect and store a little rain water or quite a bit. This Section tells you how to collect rain water, how to store rain water outside the house and how to keep rain water inside the house. This Section has drawings in it that show you how to make good water barrels, how to put gutters on houses to catch rain water, and how to make a cistern for storing water underground. There are also drawings showing how to make cisterns above ground.

If the people collect and store rain water these are the most important things to remember:

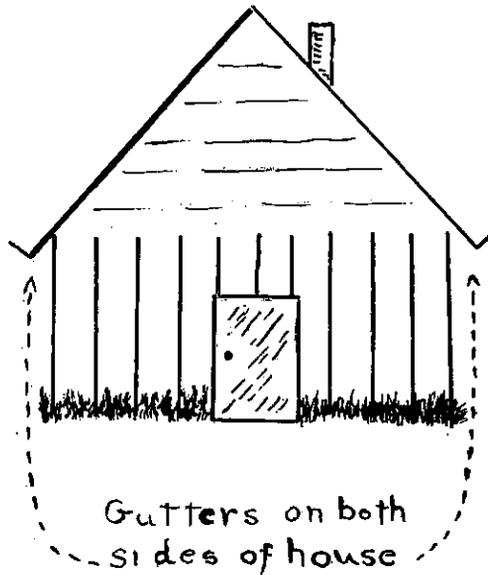
1. Keep the roof of the house clean.
2. Use barrels that are built to keep the water clean. (How to build the water storage barrels is shown in the pictures)

Ice is very often the only way people can get water during the winter. Water from wells, springs, or rain water is better to use than ice from lakes or streams. If people use ice for their water they should do these things:

1. Keep the dog teams away from the place where the village cuts the ice. Loose dogs should be kept tied so that they will not get on the clean ice.
2. The place that the village plans to get ice should be fenced off or marked so that people will know that this is where the ice will be cut.

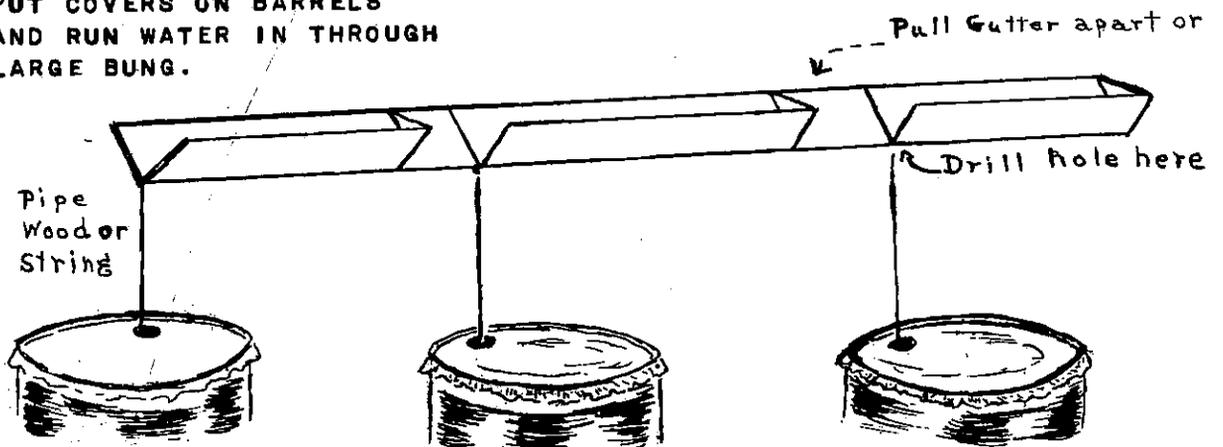
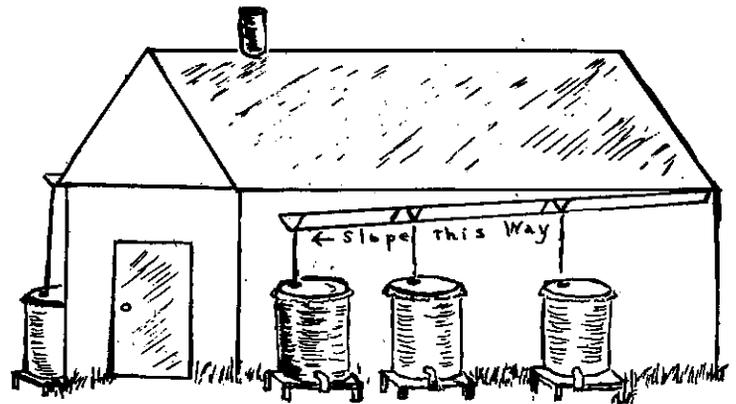
For more information upon surface water supplies you can order Bulletin HSE-6-8 from the Bureau of Environmental Health Programs, Division of Health.

HOW TO BUILD GUTTERS FOR RAIN WATER

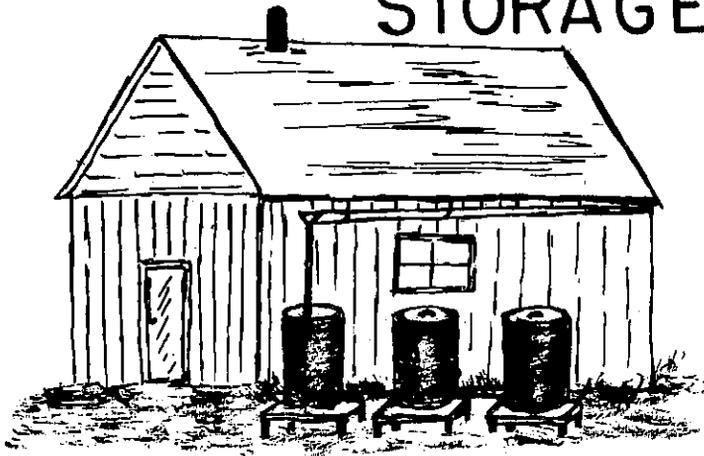


HOW TO SAVE MORE WATER

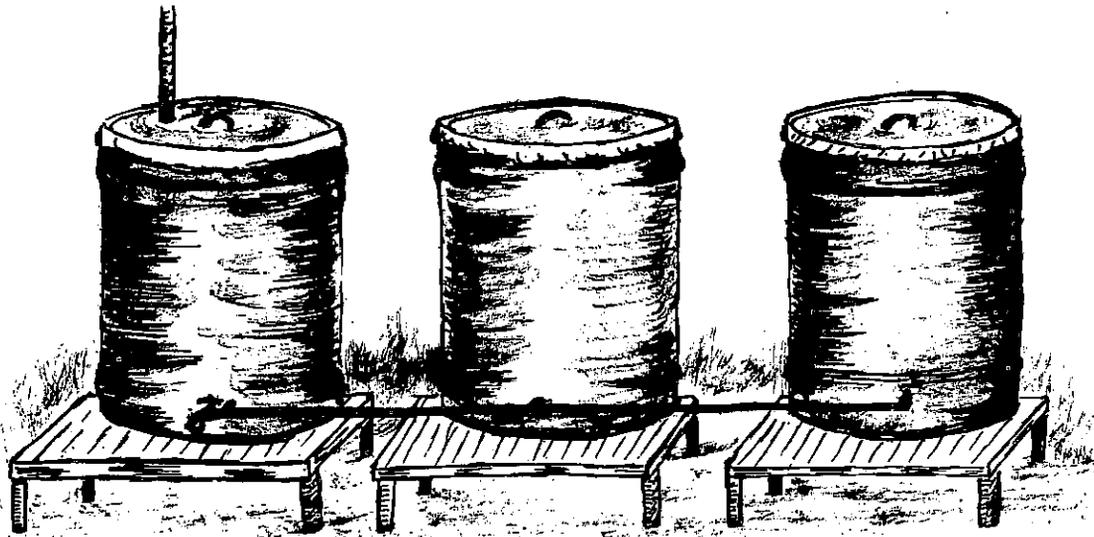
1. USE MORE BARRELS.
2. USE THE WHOLE ROOF.
3. RAISE BARRELS OFF GROUND. PUT BARRELS ON PLATFORMS.
4. PUT COVERS ON BARRELS AND RUN WATER IN THROUGH LARGE BUNG.



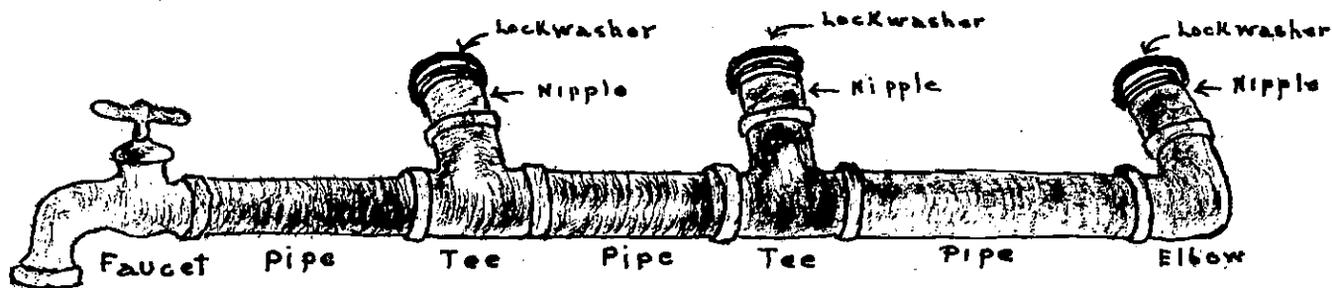
ANOTHER WAY TO GET MORE STORAGE OF WATER



1. Make covers and $\frac{3}{4}$ inch holes in each barrel
2. Put in piping as shown. Screw pipes together first then attach to barrel.
3. Run roof drain into first barrel.



5. Use three or more barrels. Build stands under them.



6. MATERIAL

- 3-Barrels
- 2- $\frac{3}{4}$ inch Tees
- 1- $\frac{3}{4}$ inch Elbow
- 3- $\frac{3}{4}$ inch close Nipples

- Pipe Dope
- 6- $\frac{3}{4}$ inch rubber washers
- 6-Electrical Conduit locknuts
- 1- $\frac{3}{4}$ inch Faucet
- 2. 30 inch X $\frac{3}{4}$ inch galvanized pipe.