First Aid for Plumbing
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Cooperative Extension Service
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May 1975
4 pages

you can do it

COOPERATIVE EXTENSION SERVICE

Departments of
Human Environment and Design
Agricultural Engineering
Urban Planning and Landscape Architecture

MICHIGAN STATE UNIVERSITY

EXTENSION BULLETIN E-849

FIRST AID FOR PLUMBING

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Most families at some time think there just isn't enough plumbing. Scheduling families through the bathroom each morning presents problems in many families; and when these facilities fail, the value of good plumbing becomes apparent.

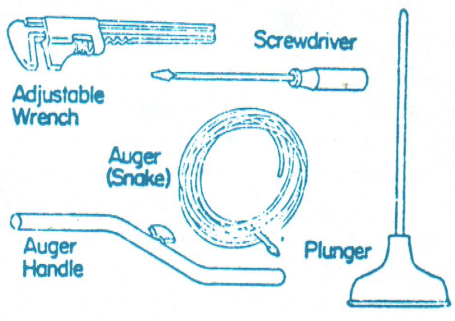
Installing new plumbing or replacing old facilities requires considerable skill or experience plus certain tools that aren't usually found around the house.

Making small repairs can prevent service calls by a plumber, thus saving dollars. Emergency repairs can be made to prevent further damage in the case of leaks or allowing the system to function until experienced help can be obtained.

TOOLS:

To be able to make minor repairs and to keep the plumbing system operating correctly the following inexpensive tools should be made available:

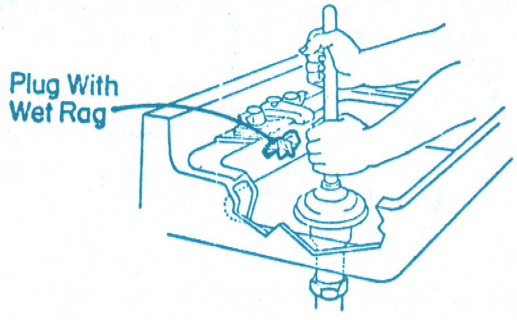
- Plunger
- Adjustable wrench
- Screwdriver
- Plumber's "spring snake"



Problem: Slow emptying bathroom lavatory.

This difficulty comes on gradually. Finally the lavatory requires several minutes to empty and someone decides it is time to act.

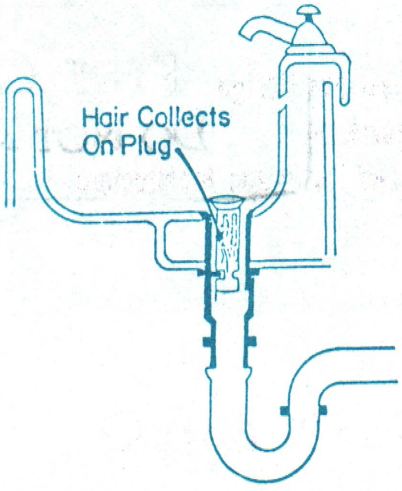
More than likely the problem is hair and soap curds caught in the stopper. Check first to be sure all the other drains in the house are working. If a regular rubber stopper is used, the hair is probably hanging on the screen in the drain pipe just below the stopper. Take the screen out and clean it.



Next use a "plumber's friend" which applies first pressure and then suction to the plugged drain. To provide the suction and pressure, smear a good layer of petroleum jelly on the edge of the rubber stopper. Then plug the overflow with a wet rag so the air will not short circuit through the overflow pipe. Pump the plunger to loosen the stoppage. If this loosens the plug, rinse the drain with hot soapy water.

If the screen can't be removed and the plunger does not seem to help, try removing the hair and trash.

Take a piece of wire (a regular hair pin, bobby pin, or thin coat hanger), put a very short bend on one end maybe 1/4" or less. If the piece of wire is very short, bend the other end so you can hold onto the wire and



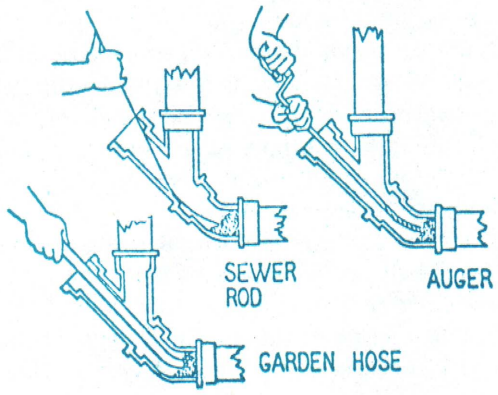
turn it without dropping it. Work the hair back out of the drain. This may take patience until it is all out.

After all the hair has been removed, flush several cups of hot water down the drain. This should allow the bowl to empty. Periodic use of a drain cleaner will prevent accumulations in the pipe. Be sure to read and follow directions on the container. Do not have your head over the drain when you pour the cleaner into the drain. The violent reaction of the cleaner in water can blow up in your face.

Problem 2: Plugged sink or lavatory drain.

Sometimes the main drain from the house may be plugged with roots, or the drain to the septic tank might be full; so first check to be sure other drains in the house are clear. If other drains are plugged and toilets don't flush, the problem is most likely in the main sewer outside of the house. Temporary repairs can be made by using a plumber's tape, a 50' to 100' long strip of steel about 1'' wide and 1/8'' thick with a point on the end.

Find a cleanout plug in the basement near the outside wall where the drain goes out to the septic tank or street sewer. With a large wrench remove the brass plug and



start the point of the tape down the drain. If the tape hits an obstacle, ram it back and forth until it clears. When it clears you will probably hear the water gurgle as the pipe empties. With a hose flush the drainpipe before replacing the plug.

If the stoppage feels like roots, the water draining slow and the stoppage recurs frequently you might try copper sulfate to kill the roots. The following steps should be followed.

1. Where stoppage is serious and recurrent, apply 5% copper sulfate Crystals, once a month until condition is much better. A drugstore or chemical supply store have this material.
2. Follow this with one pound doses per year (mark on your calendar).
3. Don't allow copper sulfate to stand in fixture traps, as metal corrosion may occur. Flush the crystals through toilet bowl or through the cleanout* in the basement and follow with enough water to insure (a) their transmission through the soil pipe to beyond the cellar wall and (b) their conveyance to and against the root obstruction.
4. Don't expect immediate results from copper sulfate; only the life of the roots is taken by the cooper treatment, and thereafter the normal processes of decay must ensue before roots can be carried on out to the main drain.
5. Don't expect the treatment to clean sewers mechanically obstructed by breakage, bad construction or foreign material.

The clean-out is **not the drain where you dump laundry water. It is the place where a cap must be removed to gain entrance to the drain.*

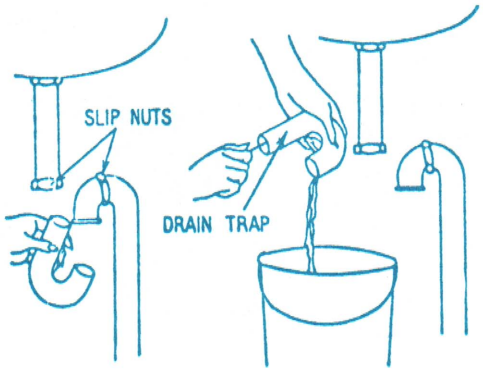
When copper sulfate is used in connection with a septic tank tile field, the solution could be poured into an opening in tile line beyond the tank itself. If you run the solution through the septic tank it will be diluted and not clear a stoppage in the tile field and might temporarily affect the bacterial action in the tank.

If all other sink and toilet drains are open the blockage is local.

1. Check the stopper for accumulations of hair, soap and other foreign material. If a plain rubber stopper is used the accumulation is probably on the grate in the drainpipe just below the stopper. Proceed as described for slow emptying lavatories.
2. Some mechanical stoppers can just be pulled out, others can be lifted, turned and raised, still others require disassemblying the unit. Take the stopper out and remove all hair and foreign material.
3. If the stopper will not come out you have a more difficult problem. Remove the trap below the sink as described in Step 4. Also remove as much of

the pipe to the bowl as possible. Now with a wire with a short hook, clean the hair out by working both from below and above the sink.

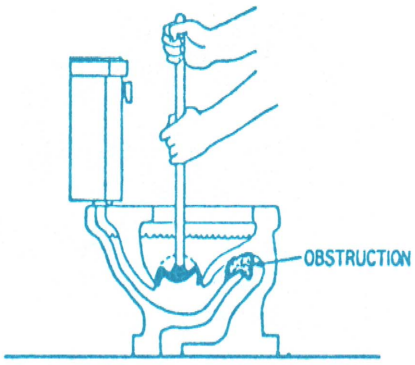
4. After the bowl drain is free, remove the bottom of the trap below the lavatory by turning the two large nuts. The nuts are on the pipes so turn them counter-clockwise as you look at them from the pipes. **Be sure** to put a bucket under the trap to catch the water which accumulates in the trap. Clean out the trap with hot soapy water.

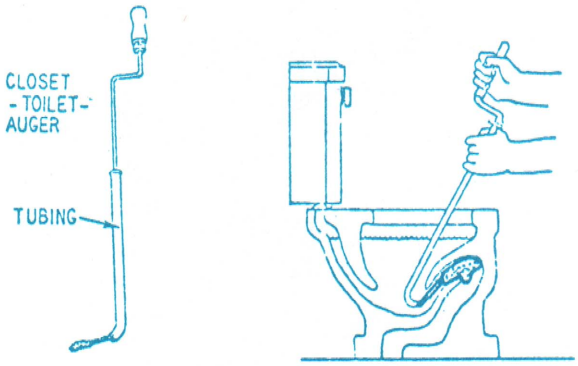


5. Insert a plumber's "spring snake" into the drain pipe and turn it as it goes into the pipe. There is usually a hook on the tip which will catch on whatever is in the pipe. If and when you feel it catch pull it back out. Do not try to push it through. Usually a plumbing fixture is within 5 or 6 feet from a vertical pipe so if the snake goes through to this pipe you can feel it on the snake and the system should drain.

Problem 3: Stopped up toilet.

This could be due to the use of certain kinds of toilet paper. It could also be due to non-soft materials being dropped into the toilet such as combs, washcloths, diapers, socks, brushes, etc.





First try a "plumber's friend" or plunger. A plunger for the toilet is different than one for a lavatory, although there is a type which can be used for both. If this does not clear the stoppage use a plumber's snake made for a toilet. This differs from a lavatory snake because it has a section of tubing which can be pushed into the liquid in the toilet.

The outlet is the large opening usually towards the back. With the pipe handle inserted in the outlet, gradually turn as you insert the spring into the drain. The spring has a hook on the tip so when you feel it catch on something continue to turn the handle slowly and pull the stoppage out.

If the plunger or the snake do not remove the stoppage, call a plumber.

Issued in furtherance of cooperative extension work in agriculture and home economics, acts of May 8, and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Gordon E. Guyer, Director, Cooperative Extension Service, Michigan State University, East Lansing, Michigan 48824.
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