volume, which is accurate enough) of caustic soda in it. (*Handle the caustic soda with care to avoid burns by direct contact or by splashing*.)

(c) When the water in the bucket starts to boil, carefully add the beaker of dissolved caustic soda to it.

(d) Now slowly add the dried peat. Enough peat is added and allowed to mix with the water until a thin, gruel-like consistency is attained. This can be expected to take, volumetrically, about 7 to 10 litres (1.8 to 2.6 gal) of dried peat in 17 litres of water, but different sources of peat can give varying results. (The mixture must remain thin enough to be poured.) Keeping the water boiling while adding dried peat helps to mix the peat into the water, *but this must be done with great care to avoid splash burns*. (See FIG 5.26.)

(e) As the dried peat mixes with the water, the water turns very dark brown, the darker the better. A sample of the liquid is taken to assess the extract's strength. The sample, a large drop on a white background or held in a pipette as shown in FIG 5.27, should be very dark brown, reminiscent of Guinness Stout in colour, but darker. If the sample is lighter than the examples in the photograph, the addition of a little more caustic soda may improve the extraction and increase the strength of the extract, causing it to darken further. This is done by dissolving another 20 ml of caustic soda in some more warm water, and adding this slowly to the peat while carefully stirring it. The peat must still be boiling or close to boiling when the extra caustic soda is added. A pH of as high as 11.0 or 12.0 may be required for optimum extraction. Note that some peat may require no extra caustic soda over and above the initial amount. This can only be ascertained by trial and error. (If the peat extract is a little weaker than it could be, this is not serious, it simply means using a little more with the fish.)

(f) Before proceeding, to reduce the risk of burns, *allow the extract to cool for a while in the bucket*.

(g) Once the extract has cooled sufficiently to work with comfortably and safely, place a spare empty bucket in a raised position (for siphoning) and place the filter material over the top of the bucket. Push the material down in the centre to create a large 'bowl' to hold the peat, then peg it in place as illustrated in FIG 5.28.

FIG 5.26. *Dried peat mixing into the water as the water boils.*

(h) Pour the peat carefully into the bowl created by the filter material. (Hot peat will splash and burn, so it must be allowed to cool before doing this.) All of the peat should eventually fit in if the 'filter bowl' has been pushed deep enough into the bucket. If not, drain some of the peat extract out from under the filter (explained next) to create more space.

(i) If a permanent draining pipe has not been fitted to the filtering bucket, remove a peg, pull back a small section of filter material, and push a siphon hose down into the filter bucket between the filter material and the bucket wall, until it reaches the bottom of the bucket. Then pull the pipe back slightly to ensure that its end is not pressed against the bottom of the bucket, which would block it.

(j) Drain or siphon the peat extract into a spare bucket. (See FIG 5.29.) As the peat extract drains out, space becomes available on top of the solids remaining in the filter material. (If there is no space, remove a little of the peat