of the house-keeper is to find means of removing the lime or of reducing its ill effects.

According to the nature of the lime salts present, water is said to be temporarily or permanently hard. Temporary hardness is due to the presence of carbonate of lime and such water may be softened by boiling. If the water is allowed to stand the lime settles to the bottom of the receptacle and the softened water may be withdrawn from the top. Permanent hardness is due to the presence of sulphate of lime and boiling has no softening effect upon permanently hard water. Iron is another salt, very obnoxious in laundry water. Its presence, even in very small amounts, may give a yellow tinge to clothing, due to the deposit of minute particles of iron rust in the pores of the fabric. Organic matter may be present, which causes clothing to become discolored and disagreeable in appearance and which may make it dangerous to the wearer. It is very desirable in all the above cases to remove the mischievous substance.

A number of materials are on the market for softening water. The cheapest and best of these are the alkalis known as: washing soda, lye, borax, and ammonia. The objection to the use of any chemical in softening water is the injury it may do to the fabric.

ALKALIS

Washing Soda is the cheapest and best alkali to use generally. This can be used safely, is used carefully, for white linens and cottons. It is not so corrosive as to render its handling difficult. It should never be used in the dry form for it is an alkali sufficiently strong to eat holes in a fabric if used in full strength and a strong solution is formed at each spot where the dry substance falls.

Lye or Caustic Soda is an alkali of far greater strength than washing soda and should be used with just so much caution. It is so much more difficult to handle and its action is so much more corrosive that it is not advisable to use it in the home laundry. It is used mostly in softening large quantities of water by the barrel or tank.

Borax is more expensive and is not so effective in its action; but it is less harmful to fabrics and for this reason there are occasions when it is greatly to be preferred. Washing soda and lye, unless they are thoroughly rinsed from the clothing, have a tendency to cause yellowing, particularly when starch is to be used afterwards. Borax has a tendency to whiten and is directly added to starch to increase its clearness. When colored fabrics or wool