

# 28

## PREPARATION BEFORE LAUNDERING

### 28.1 INTRODUCTION

Have you ever been to a laundry shop? What does the man on the counter do when you hand over the clothes? He opens up each item and examines them. Why does he do so? Well yes, to examine if there is anything that he needs to report to the customer i.e. if the item has hole or tear or any noticeable stain which may remain even afterwards. The man at the counter reports this to you because he does not want any blame of such a damage later at the time of delivery. But this kind of examination has other reasons as well. In this lesson we would like you to learn about what you can and should do when the articles come to you. You should do all this not only to protect your position but also to give greater satisfaction to the customer.

### 28.2 OBJECTIVES

After reading this lesson you will be able to do the following:

- state the reasons and importance of examining clothes before laundering;
- list and describe the preparation required by the article eg.
  - a) identify the damages and suggest remedies;
  - b) identify the fabric and prepare it for laundering;
- list and elaborate the preparation required in different situations and for different fabrics.

### 28.3 EXAMINING THE ARTICLES

You already know one reason why you examine an item when it arrives for laundry. You need to know if the article has any damage already and hence to protect yourself of any blame which may be a false blame. The customer must know that the item is already damaged and you did not damage it. You can suggest: (1) if it can be corrected at your

end;

(ii) if you will charge extra for this service and

(iii) how much will you charge.

You must also tell the customer if you are unable or unsure of the correction of the damage noticed but of course that you will try.

The examination of each item is important for you for some other reason too. Before you launder the item you must know the fabric and how it will behave with the laundering aids – soap/detergent and other chemicals, water, ironing, etc. You also need to know if the colour is fast. If it bleeds then you have to treat the item differently. If there is a stain it has to be treated first because these can spread or get fixed and spoil the item forever if washed straight away. The holes or tears on the item, if not attended to, can enlarge while laundering and damage the item beyond repair. There may be a loose button which, if not attended to, can get lost. You may not get a matching button. A different button can spoil the look of the garment and also earn the anger of the customer.

## 28.4 PREPARATION REQUIRED BEFORE LAUNDERING

### 1. Mending

- If there is a broken seam or tear it should be stitched.
- If there is a hole it should be darned.
- If there is a loose button it should be fixed.

You can do all this yourself or get it done from someone. It can be a service for your customer free of charge or on nominal charge. You can also ask the customer to get it done and then bring it back for laundering. Explain to him the damage that can be caused due to neglect.

### *Activity*

Next time for your own washing at home follow this and see how useful it proves to be.

### 2. Stains

If there are any stains on the articles, they should be removed. The details and know-how of methods of stain removal are given later in this lesson.

### 3. Sorting

- (a) Articles to be washed should be sorted out. For example cottons, silks, woolens, synthetics should be separated. Do you know why? You know that every fabric needs different treatment while laundering.
- (b) Coloured articles should be separated from the white ones, why? You are right. If any item bleeds all the items will get damaged. It is always advisable to wash white's separately. Even slight colour loss from coloured items will affect the whiteness of the white items.
- (c) Very dirty articles should be separated from the usual dirty ones. For example, if you are going to wash kitchen dusters also, then these should be separated from the clothes you wear. You remember some fabrics have a scavenging property. Well soaking them together will help them scanvange and collect dirt.

### 4. Steeping / Soaking

Are you soaking clothes before washing? Soaking helps to loosen dirt. When clothes are

soaked in a soap solution remember that they are soaked separately. Soaking makes it easier to wash clothes and thus reduces the time and energy required for washing. Soaking can be done in plain water and soap/detergent. These days, if you have noticed, all detergent packets give the instructions of soaking for 1/2 hour.

### INTEXT QUESTIONS 28.1

- I. Fill in the blanks, using the most appropriate words from the ones given in the brackets.
  1. Clothes must be \_\_\_\_\_ before washing. (dried, mended, ironed, starched)
  2. \_\_\_\_\_ articles should be heaped separately from the less dirty ones. (cotton, silk, heavily dirty, woolen)
  3. \_\_\_\_\_ articles should be soaked before washing. (coloured, white, dirty, washed)
  4. Soaking helps to \_\_\_\_\_ dirt. (increase, decrease, loosen, prevent)
- II. State three reasons for examining the articles when they came to you for laundering.
- III. State one reason each for separating each of the following before laundering.
  - a) Cottons from silk.
  - b) Whites from coloured clothes.
  - c) Very dirty articles from less dirty articles.
- IV. Soaking of clothes should be done in
  - a) plain water
  - b) soap and water
  - c) plain water or soap and water
  - d) plain water and soap and water
- V. Clothes should be soaked in water for
  - a) 1/2 hr to 1 hr.
  - b) 2-3 hours
  - c) 3-4 hours
  - d) overnight

## 28.5 STAIN REMOVAL

A stain is an unwanted mark due to the contact of another substance on fabric.

It may be ink from a pen or a ball-pen, curry, grease, blood; paint rust, lipstick or even a mark from another fabric. As we have told you earlier a stain if not attended to on time i.e. fresh and before washing, can get fixed permanently or spread while washing and thus spoil the item for ever because stains look ugly on the item.

Some stains can be removed with just soap and water. There are others which need specific treatment. At the end of this lesson we have enclosed those procedures/treatments in tabular form. You can follow them and bring the fabric to original form. However, here we want you to know about some primary rules of removing stains.

## PRIMARY RULES OF STAIN REMOVAL

Stains should be removed very carefully. If general precaution are not taken, it may result in the damage of the fabric. So whenever you have a stain to remove, do the following :

- (i) Remove the stain when it is still fresh.
- (ii) Find out whether the stained fabric is cotton, silk, wool, or synthetic.
- (iii) Try and find out which stain it is.
- (iv) If you are not able to find out the nature of the stain, try the simplest method first and then the more complex procedures. For eg. first just use water, then soap and water. Chemicals should be the last resort.
- (v) Select a chemical that does not damage the fabric i.e. choose a chemical which is appropriate for stain and the nature of the fabric.
- (vi) Try out the stain removal on a corner of the fabric to ensure that it will not cause any damage to the fabric.
- (vii) It is better to use a mild chemical many times, than to use a strong chemical at once.
- (viii) Wash the fabric well promptly after the stain is removed. This is to remove the chemicals completely or else will damage the fabric.

## HOW TO RECOGNISE A STAIN

To be able to decide what treatment to give a stain, it is important for you to first identify the stain and determine its nature.

- (i) See if the stain is *fresh* or *old*, then select the method of its removal.
- (ii) You can identify the stain by its *colour*. Every stain has a specific colour, eg. gravy stain are yellow, tea and coffee are brownish, blood is brownish red and ink is the colour of ink.
- (iii) Stains can be recognised also by their *smell*, eg. stains of egg and paint have a characteristic smell.
- (iv) Touch also helps to identify a stain eg. paint makes a fabric stiff. Stains are generally soft to touch.
- (v) Appearance of the stain can also reveal a stains type eg., an absorbed stain (tea, coffee) vs. a smear stain eg. lipstick or nail polish which is on one side of the fabric.

## CLASSIFICATION OF STAINS

Stains have been classified here according to their nature and hence have a common element to remember while removing them.

### I. Animal Stains

These stains are caused by blood, egg, milk, meat, juice, etc., and are all protein by nature. Heat must be avoided with them as protein coagulates and fixes them further.

### II. Vegetable Stains

This category includes tea, coffee, cocoa, fruit juices, aerated drinks and wine stains. These stains are acidic in nature, so require alkaline stain removers to remove them.

### III. Grease Stains

These stains comprise of grease only or grease + colour. The use of grease solvent or grease

absorbers becomes helpful here. For example butter, ghee, curry, oil, paint, varnish, tar, boot polish, furniture polish, lipstick etc. would all need a grease solvent/absorber to remove grease.

#### IV. Mineral Stains

Stains like iron rust, black ink, certain medicines etc. are categorized as mineral stains. They are made of a combination of metal + dye and can be removed only by bleaching agents.

#### V. Dye

Dye stains could be acidic or alkaline in nature. Hence find out the nature of the stain before using a specific removing reagent.

## 28.6 TECHNIQUES OF APPLICATION OF STAIN REMOVING AGENTS

How you apply the different stain removing reagents on a stain would be determined by the stain type and its intensity. Stains, especially like the grease stains (eg. lipstick) are treated by the **sponging** technique. Here the right side of the stain is put face down on an absorbent material (blotting paper). A cotton ball soaked in the reagent is moved in circular motions on the wrong side, the movement starts from the outer edge and moves inward to prevent any further spreading of the stain.

**Dropping** : Another technique, known as dropping technique which is very similar to sponging. In this case we do not sponge the stain but the reagent is dropped on the wrong side of the fabric drop by drop. The stain can also be removed by *dipping* the stained area of the fabric into the reagent with slight rubbing. This technique is suitable for older and more stubborn stains.

#### LIST OF REAGENTS

Collect the following reagents and keep them ready. They will be useful in removing stains.

1. Washing soda or sodium carbonate.
2. Borax.
3. Rock ammonia (Ammonia carbonate).
4. Oxalic acid.
5. Salts of lemon — By action of oxide on Potassium.
6. Acetic acid.
7. Vinegar 6% ( $\text{CH}_3\text{COOH}$ ).
8. Bleaching agents.

##### (a) Oxidising bleaches

(i) Sunlight with moisture, air, grass.

(ii) Sodium hypochlorite or javelle water.

Recipe : 1 teaspoon washing soda  
1 litre water (boiling) ] A

+

1/2 teaspoon chloride of lime ] B

2 litres cold water

The clear solution of B is added to A and stored in coloured bottle in cool place.

- (iii) Hydrogen peroxide ( $H_2O_2$ )
- (iv) Potassium Permanganate - ( $KMnO_4$ )

(b) Reducing bleaches

1. Sodium hydrosulphite - Used when stains do not respond to oxidizing bleaches.

9. Grease Removers

a) Grease Solvents — Petrol, Benzene, Turpentine, Methylated spirit, Carbon tetrachloride, Paraffin.

b) Grease absorbers

Bran	—	Outer cover of wheat grain
Fuller's earth	—	natural clay
French chalk	—	magnesium silicate

10. Blues

Ultramarine blues. Tenopal, blue bird etc.

**EQUIPMENTS & AIDS**

Here is a list of some equipment which is handy when you are removing stains. Try to have as many of these as possible.

1. Good light.
2. Tray/Basin.
3. Clean smooth surface.
4. Spotting brush.
5. Magnifying glass.
6. Absorbent material - sponge, blotting paper.
7. Bottles - glass, plastic, coloured glass.
8. Electric fan.

**ACTIVITY I**

**EXPERIMENT**

**AIM :** To remove the stains of tea, coffee, cocoa, fruit juice and wine from a) white cotton fabric b) coloured cotton fabric.

**MATERIALS REQUIRED :**

Burner, plastic mugs, tubs, enamel bowls, match box.

**NOTE :**

1. You should take care that no metallic utensils are used because they may react with the chemicals used for stain removal.
2. In case the laboratory beakers etc. are not easily available for use, you can even use common household utensils (enamel bowls etc.)
3. The utensils that you use for the experiment, should be kept separate for this purpose.

**CHEMICALS REQUIRED :**

Borax, glycerine, javelle water, dilute borax solution (1/2 teaspoon in 2 cups of water).

**METHOD :****(a) For White Cotton Fabric**

If the *stain is fresh*, then pour boiling hot water through the stained area, keep doing this till the stain is diminished and the stained area becomes clear.

If, however, the *stain is dry* (more than 24 hours old) then first smear borax powder evenly on the stained area and then pour boiling hot water through it. Apply friction with hand or brush if necessary. Now keep the stain steeped in glycerin for sometime and then bleach with javelle water (Recipe for making at home is given above). Rinse the fabric in plain water and dry.

**(B) For Coloured Cotton Fabric**

For a freshly stained area, steep it in warm water and then in dilute borax solution for sometime, till the stain clears up. Repeat if required. Finally rinse in plain water and dry in shade.

If the stain has dried up, then repeat the above procedure, plus apply glycerine, to the stained area and rub. Finally rinse in warm water and dry in the shade.

**ACTIVITY II****EXPERIMENT**

**AIM :** To remove the ink stains from white cotton fabrics.

**LIST OF STAINS :** Blue ink, Red ink, Ball pen mark.

**MATERIALS REQUIRED :** Plastic mugs, tub enamel bowls, dressing cotton, blotting paper, tomato, lime juice.

**CHEMICALS REQUIRED :** Dilute oxalic acid, dilute borax solution, methylated spirit.

**METHOD**

- For a *ball pen ink stain*, scrub the stained area of the article with methylated spirit. Before starting to sponge, place the stain face down on a blotting surface and then sponge in the inward direction (this prevents the stain from spreading any further).
- If you have a blue or black ink stain on your white cotton articles and the stain is less than 24 hours old, then apply salt and lime juice on the stain and leave it for 1/2 hour. Then wash the stain with soap and plain water and dry in the sun. If, however, the stain of ink is more than 24 hours old, then after treating the stain with lime juice and salt, steep it in dilute, oxalic acid. Finally you need to rinse the treated area in dilute solution of borax. After a rinse in plain water leave it in the sun to dry.
- For a fresh red ink stain, you should first wash it in soap and water and then steep it in the borax solution for sometime. Finally rinse in plain water and dry in the sun.

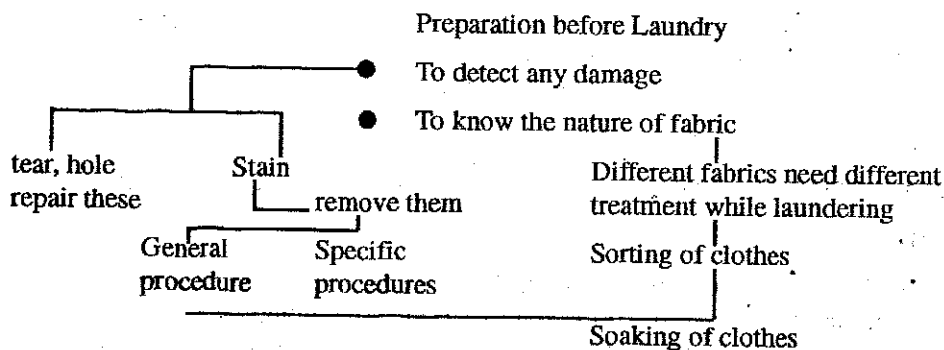
**INTEXT QUESTIONS 28.2**

1. Fill in the blanks in the following statements.

- A stain is an \_\_\_\_\_ mark.

- (ii) A stain is best removed when it is still \_\_\_\_\_.
- (iii) A stain can be recognized by its colour, touch and \_\_\_\_\_.
- (iv) A stain should first be tried to be removed by the \_\_\_\_\_ method.
2. Give the best method for removing the following stains :
- Old tea stain on white cotton fabric.
  - Lipstick stain.
  - Old blood stain on a coloured cotton fabric.
  - Fresh butter stain on cotton.
  - Rust stains.
  - Nail polish stain on polyester.
3. State whether the following statements are True or False :
- Sodium hypochlorite is also called javelle water.
  - Sunlight with air, moisture and grass bleaches by reduction.
  - Heat should not be used on protein stains.
  - Vegetable stains are acidic in nature.
  - Methylated spirit is used on grease stains only.

## 28.7 WHAT HAVE YOU LEARNT



## 28.8 TERMINAL QUESTIONS

- Present a list of chemicals which are used for removing stains.
- When do you use a reducing bleach?
- Name a reducing bleach.
- While preparing javelle water what do you do – add solution A to B or B to A?
- Present a list of equipments and aids needed for stain removal.
- Define a stain.
- Give two reasons for removing stains from the fabric
- Here are some primary rules for removing stains. Arrange them in sequential order.
  - Wash the fabric well

2. Choose the right chemical
  3. Know the stain
  4. Know the fabric
  5. Try the chemical
9. Give four ways to recognize the nature of stains.
  10. Name major groups of stains to classify them.
  11. What is needed to remove the following stains:
    - (i) a stain containing grease
    - (ii) a stain which is acidic in nature
    - (iii) a stain which is due to the colour of a metal
  12. Give three reasons for examining the articles when they came to you for laundering.
  13. State one reason each for separating each of the following before laundering.
    - (a) cotton from silk
    - (b) whites from coloured clothers
    - (c) very dirty articles from less dirty articles
  14. Soaking of clothes should be done in
 

(a) plain water	(c) plain water or soap and powder
(b) soap and water	(d) plain water & soap and water
  15. Soaking is enough for
 

(a) 1/2 hour to 1 hour	(c) 3-4 hours
(b) soap and water	(d) Overnight

## 28.9 ANSWERS TO INTEXT QUESTIONS

- 28.1
1. i) mended      ii) heavily dirty  
       iii) dirty      iv) loosen
  2. i) to know the fabric  
       ii) to find out regarding holes or tears and it has to be mended.  
       iii) if there is a noticeable stain
  3. i) refer text    ii) refer text    iii) refer text
  4. b
  5. a
- 28.2
1. i) Unwanted    ii) fresh    iii) small    iv) sponging
  2. i) refer text
  3. i) T    ii) F    iii) T    iv) T    v) T

### 28.10 Procedure to Remove Specific Stains

STAIN	CONDITION	WHITE COTTON AND LINTEN	COLOURED COTTON & LINEN	SILK AND WOOL	SYNTHETIC FIBRES
1. TEA, COFFEE	FRESH	Pour boiling water through it	1. Steep in warm water 2. Steep dilute borax solution ( $\frac{1}{2}$ tsp in 2 cups water)	Same as for coloured cotton	Steep in warm sodium perborate solution (1 tsp in 1/2 lt.)
2. FRUIT JUICE, WINE	DRY	1. Spread borax over and pour boiling water through. 2. Steep in glycerine until stain removed. 3. Bleach with javelle water.	1. Repeat above method 2. Steep in warm water. Apply glycerine and rub.	1. Steep in borax solution 2. Treat with dilute hydrogen peroxide	—Do—
3. BLOOD	FRESH DRY	Soak in cold water, then wash in dilute ammonia Steep in cold water and salt until stain removed.	soak in cold water, wash in dilute ammonia Same as white cotton.	Sponge with cold water. Same as white cotton. For unwashable fabrics apply starch paste and leave it to dry.	Wash in cold water.
4. BUTTER (Grease + colour)	FRESH	Wash with warm soapy solution	Same as white cotton.	1. Treat with solvent soap. 2. Cover stain with french chalk Place between clean blotting paper and press with hot iron.	Cover stain with french chalk. Place between clean blotting.
5. CURRY (Grease + haldi) solution followed by 8%	FRESH	1. Wash with soap and water. 2. Bleach in sunlight and air. 3. Bleach with javelle water.  sodium bisulphite solution.	1. Treat with solvent soap 2. Bleach in sunlight and air only 3. Treat with 10% $KMNO_4$	1. Treat with solvent soap 2. Treat with $KMNO_4$ and ammonia solution alternately.	1. Wash with soap and water. 2. Bleach with sodium perborate.
6. GREASE (Oil +Ghee)	FRESH DRY	Wash in hot water and soap. Treat with grease solvent (sponging method) and wash with hot water and soap.	Same as white cotton	If washable, same as cotton. For unwashable, treat with grease absorbers (french chalk or fullers earth), leave for one, hour and brush off.	Same as for silk and wool.

ICE CREAM & CHOCOLATE	FRESH	1. Wash in cold water & soap. 2. Steep in warm borax solution. 3. Sponge with white petrol or carbon tetrachloride.	Same as white cotton.	1. Wash with cold water and soap. 2. Add a few drops of ammonia to a cup of water, steep in this solution.	Same as for silk and wool.
	DRY	Bleach with KMNO <sub>4</sub> & oxalic acid.			
8. LIPSTICK	1. Sponge with solution of methylated spirit and wash with soap. 2. Bleach with javelle water.	Same as white cotton.	Same as white cotton.	Same as white cotton.	1. Steep in Kerosene/Turpentine. 2. Wash with soap & warm water.
9. EGG	FRESH	Wash in cold water then warm water and soap.	Same as cotton.	Same as cotton.	Same as cotton.
	DRY	Apply salt and pour warm water through it.	Steep in salt solution.	Steep in salt solution.	Steep in salt solution.
10. HEENA		Dip in warm milk for 1/2 hr. Then wash with soap.			
11. INK (Blue & Black)	FRESH	1. Rub the stains with a cut tomato wash. 2. Apply salt & lime juice. Leave it for 1/2 hr. wash.	Same as cotton.	1. Treat with sour milk or curd. Do not allow curd to dry, wash with salt water. Steep in dilute oxalic acid and rinse in dilute borax solution.	Same as silk and wool.
	DRY	After treating with salt & lime juice, steep in dilute oxalic acid and rinse in dilute borax solution.			-do-
12. INK (Red)	FRESH	1. Wash with soap and water. 2. Steep in borax solution.	Steep in borax solution.	Steep in dilute ammonia solution.	Same as silk.
13. BALL POINT INK		Swab with methylated spirit in the sponging technique.	Same as cotton.	Same as cotton.	Same as cotton.
14. DYE		1. Steep in water. 2. Wash with soap. 3. Steep in dilute alkali or dilute acid. 4. Treat with alcohol, ammonia and dilute acetic acid. 5. Steep in cold bleaching powder. 6. Bleach with javelle water.	Same as cotton.		

15. IODINE	FRESH DRY	Apply starch paste on the stain. Leave it to absorb stain, wash. Steep in sodium through sulphate solution.	Same as cotton.	Same as cotton.	Same as cotton.
16. IRON RUST		1. Steep in oxalic acid solution and then rinse with dilute borax solution.	-do-	-do-	-do-
17. GRASS		1. Steep in methylated spirit. 2. Warm with soap and water.	-do-	-do-	Steep in Kerosene.
18. LIPSTIC		1. Steep in methylated spirit wash with soap. 2. Moisten & soften by glycerine. Rinse and then wash with soap. 3. Bleach with javelle water.	-do-	-do-	Steep in kerosene or turpentine. Wash in soap and warm water.
19. CARBON PAPER		Steep in methylated spirit, wash.	-do-	-do-	Same as white cottons
20. MILK		Sponge with benzene or carbon tetrachloride, wash.	-do-	-do-	-do-
21. MEDICINE		1. Steep in warm water. 2. Steep in oxalic acid and wash with borax solution. 3. Steep in methyl alcohol.	Steep in methylated spirit.	Same coloured cottons.	Same as colored cotton.
22. NAIL VARNISH		Apply amyl to the stain.	-do-	-do-	-do-
23. OIL, PAINT		1. Steep in turpentine wash with soap. 2. Steep in alcohol wash with soap. 3. Sponge with equal parts alcohol and benzene.	Steep in kerosene or turpentine Wash with Soap.	-do-	For rayon, alcohol not used.
24. MILDEW		1. Apply soap lather on stain, cover with french chalk and place in sun. When stain almost removed apply lime juice & salt, wash. 2. Bleach with javelle water.	Same as cotton.	Same as cotton.	Same as cotton.