

TEXTILES AND FABRICS

Their Care and Preservation

A. J. ERNEST MOSS



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PREFACE

SUCCESS in dry cleaning today is vastly more dependent on quality cleaning, done, of course, on an intelligent production basis, than ever before in the history of the industry.

Recent years have seen the starting-up of many new cleaning plants, and this new competition is going out after business.

Never before has the dry cleaner had to face such a call for quality cleaning as he does at the present time. A demand that arises, I feel, as the result of the invaluable consumer education fostered by better-type cleaning plants, plus good public relations propaganda.

To meet successfully the twin demands of speedy service and quality cleaning, the dry cleaner must streamline all his processes and operate every department to tried and tested formulae, in order to give the quality expected while at the same time maintaining an efficient service.

To obtain quality cleaning several rules must be rigidly observed, and these rules may be summed up as follows: Efficient sorting of garments into their proper classifications; careful weighing of every load to be processed; loading washers with correct poundage for which they were designed; efficient filtration or clarification; proper timing of every load processed so that it may conform to the particular cleaning formula being used; machines operating at correct speeds, and with proper solvent levels; soap runs carefully controlled and strictly in accordance with formulae; correct hydro-extraction; and efficient deodorization, using correct temperatures in the process.

Use of mechanical aids in dry cleaning is a subject that is receiving more and more attention from far-seeing plant operators every day, and this development towards improved methods in mechanical processing is also being very carefully studied, at the same time, by dry cleaning engineers.

In covering the field of new ideas it is essential to commence at the receiving end of the dry cleaning process, and, subsequently, to progress through each stage, noting the latest practices in each department. In many instances techniques will be also observed in operation which are designed specifically to improve performance in existing equipment.

PREFACE

In many parts the text will be found to be printed in *italics*. This has the object of drawing attention to important precautions which must be observed if injury to fabrics and dyestuffs are to be avoided.

The object of this manual is to bring the most up-to-date and also simplified methods into use. Past experience, allied to long and patient research, has helped the experts of the industry to perfect these simplified modern methods and so, in bringing them to the notice of the operator, it is the author's sincere endeavour to give him a fuller and happier understanding of the job.

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CHAPTER 1

RECEPTION OF GOODS

THE RECEIVING OFFICE

The receiving office or branch may be regarded as one of the most important departments of the Cleaning business.

It is therefore obvious that the greatest care be exercised in the choice of staff. The personality of the manageress is a matter of very considerable importance and, in addition, she should have a knowledge of the technical side of the business. The manageress may be regarded as the principal link between the customer and the firm and it would undoubtedly be of considerable benefit if she could spend a short period in the works to enable her to obtain some little knowledge of the processes through which the goods have to pass.

No receptionist is expected to be an expert on all phases of the processing, but each and every one is expected to use common sense. At all times it is necessary to demonstrate to the customer that the firm is desirous of obtaining and retaining his or her goodwill, and attention to detail in the receiving of a garment goes quite a long way to achieving this end.

When an article is brought in for Cleaning it is the duty of the manageress to examine it thoroughly for any defects such as fades, stains, holes, etc., this being done while the customer is present, and it should be explained that the examination is necessary in case any defects which exist should become aggravated during the Cleaning processes. Failure to do this often results in adverse criticism of the firm and too many cases of loss of sales of ancillary services.

When tears and damages are noticed, the customer's attention should be drawn to them—and it takes very little salesmanship to obtain a repair order and, at the same time, demonstrate to the client the firm's desire to do everything possible to make the garment as new as possible—in short, to give *quality dry cleaning*.

Goods requiring special techniques

Many customers tender articles which require special techniques to ensure an excellent result and such methods often require extra time. This again should be pointed out to the customer; let her see the firm is interested in the well-being of her garments; that it is not just another sale.

Watch out for articles of unusual design, and note their peculiarities on docketts or tapes, so that the works can give the attention required.

Do not, on occasions, be afraid to offer services for which you have not been asked. Quite often your customer is quite unaware that you can give such services, and upon being enlightened there is the likelihood of a further order being secured.

All this advice may sound more like sales talk and in no way connected with the requirements of quality cleaning. But in actual fact, education of the customer about the services which your firm can give is one of the surest methods of enabling the factory to give a better job, as the more time that can be devoted to an order—such as repairing after cleaning, retexturing, waterproofing, retinting, invisible mending, pleating, etc.—leads to a finer result, and in time builds up a reputation for the firm for attention to detail—or *quality cleaning*.

Mark all orders clearly

Finally, before passing on to the next department, when sending work to the factory for processing, do mark all orders clearly and distinctly. Give instructions as fully as possible; do not expect the factory to be able to guess what your customer requires.

When orders are returned to the branch, see that they have not been disarranged in transport. And if they have, make the necessary corrections. Examine the order and see that your instructions have been fully carried out. If they have not, return the work immediately for adjustment—do not wait until the customer complains before taking action. Remember the factory is not infallible; mistakes and omissions do occur.

Above all, realize that you are your firm's main connection with the public, and on your attention will the firm be judged.

EXAMINATION

The first stage in the productive side of quality cleaning is inspection, which must be made with great care, whether in the receiving shop or the factory.

One of the first essentials is to ensure that the inspection and marking department is staffed or at least controlled by an operator who is thoroughly acquainted with the various phases of processing, in addition to having a good clerical training.

All orders on arrival should be examined and checked with docketts or invoices so as to detect discrepancies, if any, at an early stage.

Inspection of all goods should be and is, as a general rule, carried

out in the presence of the customer, so that any defects or processing difficulties can be immediately noted, but it is not unusual for such defects to be overlooked in a busy branch, and it is therefore of paramount importance to carry out inspection at the works.

The principal points to be checked during inspection are as follows.

Damage. This may include tears, rips, colour loss, weakened fabric from atmospheric exposure, partially dissolved or hardened fabrics of the artificial silk range, fibre slippage, etc.

Detection of these defects should be brought to the attention of the customer. The tapes on the garments should also be marked in such a manner as to convey to succeeding operators that the damage has been noted on receipt and is not a fault of processing.

When tears and rips are found, it is not unusual for the customer to be unaware of the damage. Notification before processing obviates any tendency of a claim arising, and very often results in further business, instructions often being given for the damage to be repaired either by darning, seaming, patching, or invisible mending. This attention to service ultimately leads to enhanced customer satisfaction.

Solvent-soluble accessories, fabrics, and prints. Many articles sent for dry cleaning today are either trimmed with, or composed of, materials which are liable to be affected by solvent processes and must be deemed as unsuitable for dry cleaning.

A common source of trouble, if not detected, is the use of rubber and rubber cement in the making up of belts and certain classes of fabrics, such as imitation suede. Many interlinings of raincoats are composed of rubber impregnated fabrics, or plastic, which either dissolve or harden if immersed in a solvent. Decorative effects are frequently encountered where either sequins, rhinestones, or plastic motifs have been cemented on to the fabric using a rubber or plastic based cement. These decorations in many cases are completely removed or destroyed if dry cleaned.

Imitation pearls, which are often used for decorative purposes, are usually filled with wax. This wax will dissolve out if immersed in solvent, leaving a completely delustred shell.

Another popular form of decoration is flock printing. In this process the design is printed on to the fabric with an adhesive and, while still wet, cotton linters in a very finely dispersed state are blown on to the fabric so giving a suede effect when dry. This effect is lost in dry cleaning.

All articles of this type should be brought to the attention of the dry cleaner, and if any damage is likely to arise, they should be routed to the wet cleaning department.

Fragile accessories. Many buttons, buckles, and garment decorations are of a fragile nature, being composed of glass, plaster, or plastic, and will not stand up to the mechanical action of dry cleaning and tumbling, as their brittle nature causes them to chip, crack, or completely break. Such articles should be removed and placed in an envelope clearly marked with job description and number, so that their replacement is assured after dry cleaning of the garment.

Dress hooks and other metallic fastenings. The use of hooks as a means of dress fastening is quite prevalent and careful watch should be kept for such fastenings; where they are noticed they should be pressed down so as to avoid damage to other garments during the cleaning process. This applies especially to loose knit garments where threads are liable to be pulled.

Where it is not feasible to remove or press down hooks, damage may be prevented by masking, simply by tacking a piece of old white material over the hooks, or, in the case of curtains, folding over the material and tacking, so that the hooks are inside the fold.

Stains liable to set. When stains such as blood, albumin, and inks are encountered, they should be sent direct to the spotting department to be given special treatment prior to dry cleaning, to prevent their setting and becoming more difficult, if not impossible to remove.

MARKING

The marking of orders is of paramount importance in the dry cleaning factory, and it pays to give some thought to the layout and system to be used.

It is essential that the operators in the marking department are provided with tables or benches of adequate size to allow orders to be spread out during the preliminary stage of inspection. One of the best types of marking table is that which has a sheet of thick glass let into the top, with a fluorescent lamp underneath, for illuminating silks for the rapid detection of flaws.

The tables should be fitted with racks or shelves overhead and towards the back, the racks or shelves being designed to carry all the necessary supplies—such as marking tapes, button envelopes, pins, staples, cottons, and net bags.

The choice of marking systems is wide and operators can now save vast amounts of time and labour by the use of printed paper or linen identification tags. By this means all orders received need only have a pre-printed tag affixed to them by staple, safety-pin, or thread. Even these labour-saving methods of attachment are being threatened by an appliance which not only prints the tag, but also attaches it to the garment by means of heat in conjunction with a cellulosic type of adhesive.

For dry cleaners who prefer the older method of marking on tape by means of marking ink there is the development in the shape of the ball-point pen, charged with a special ink guaranteed safely to withstand normal processes. The value of such a pen will be readily appreciated, for it eliminates entirely the hazard of stains caused by accidental spilling of the ink.

No matter what system is used, there are certain fundamentals which must be observed, if mistakes are to be eliminated or cut to very rare occurrences. All tapes should bear firstly the code number or letter of the branch or vanman from which the order came, secondly the voucher or order number of the article, and thirdly the number of pieces in the order; for example, BR/1234/3. In this case, the order originated at a branch whose code letters are BR, the voucher number being 1234, and the final 3 conveys the number of pieces in the order, for example a 3-piece suit.

This type of marking is frequently used with a further designation, when belts, jabots, and other types of accessories accompany an order, using such contractions as BLT for belts and JBT for jabots.

The significance of such marking is to advise other operators that these accessories are in addition to the main portion of the order. Such information avoids any inconvenience to customers owing to non-return of small accessories.

A point worthy of note when deciding on a marking system is the fact that many customers abhor removing marking tapes from garments when they are returned from cleaning, and many have changed their cleaner because of this feature.

To combat this tendency many of the cleaners who aim at quality cleaning now remove marking tapes and place them in a pocket of a garment, or attach them to the works docket when a pocket is not available.

In addition to identification tapes, it is good practice to use a tape giving all necessary instructions for the information of succeeding operators and not rely on dockets, which are liable to be mislaid, or verbal instructions, which are frequently not passed on.

24 HOUR SERVICE

REPAIRS

RETEXTURE

PRESS ONLY

Figure 1. Examples of pre-printed tags

These special instructions can be written on plain tape, or pre-printed tapes which are available (see Figure 1), giving such instructions as 24-hour service, repairs, repleating, retinting, and other special services, such as retexturing, which may be required by the customer. When fastening tapes to garments, damage and customer dissatisfaction can arise if proper methods are not employed.

If using staples for fastening the tapes on garments, it is essential to check the stapling machine size, and make sure that it will use staples which are sufficiently long in the prongs so that, upon closing, the prongs will turn over in such a manner as to insert the ends back into the fabric, without leaving any protruding points to cause damage to the article itself or to any other articles with which it may come in contact. For this reason, it is safer policy to use two staplers; one using staples with prongs up to $\frac{3}{8}$ in. (0.94 cm) long, for woollen and all heavy fabrics; and one using staples with prongs up to $\frac{1}{4}$ in. (0.625 cm) long, for flimsy and silk materials.

If using safety pins to attach the tapes, here again it is advisable to use small sizes for the lighter articles and a heavier type for the more bulky orders.

Attaching tapes with needle and cotton will not require any such precautions.

The positions in which identification tapes are attached are also worthy of careful consideration, otherwise damage will occur, in addition to time being lost in various departments in looking for the tapes. In choosing a standard set of positions for attaching the tapes it is desirable, wherever possible, to select a position at a double seam as the extra thickness will give firmer attachment and less liability to damage.

The exception

The only exception to attachment at a standard position is when special instructions have to be observed, when the misplaced tape will draw immediate attention. As an example, if a skirt which was pleated on receipt is not to be re-pleated, the attachment of the tape with the special instructions, 'Do not re-pleat', is made to the bottom of the skirt instead of to the waistband.

The following positions have been found by long practice to give the best results.

Overcoats, jackets, cardigans, and silk dresses. Inside at joining seam of sleeve and body.

Vests. Inside lining at top.

Dresses. Inside at centre of back seam at collar or at sleeve seam as for coats.

Blouses, pullovers, and slipovers. Inside to seam at top centre back.

Ties. To narrow part at centre.

Gloves. To top seam of gauntlet, or inside if fleecy-lined, or by direct marking if no lining and if preferred.

In all cases it must be borne in mind that there are exceptions to every rule, and where it is not possible for any reason to use standard positions, common sense must be the guide.

Some managements prefer to have tapes attached to all sleeved garments at the cuff, to give a more readily observed mark, especially in branches, but, unless these tapes are loosely attached, there is always the risk of a soiled mark being apparent when the tape is removed. There is, however, a danger of loosely attached tapes coming off during processing.

Another form of marking which has very definite advantages is the day colour system. This system uses a different coloured tape for each day of the week, either in the form of a complete tape with branch code, voucher number, etc., or a small attachment to the tapes of other marking systems.

PREPARATION OF WORK

Preparation of garments is a most essential operation in the dry cleanery, paying dividends in return for the time and trouble devoted to its correct execution by helping to avoid claims or troubles arising at a later stage.

All pockets should be turned *completely* inside out and thoroughly brushed to remove all loose lint, tobacco dregs, and other substances likely to cause contamination of the dry cleaning solvent.

Mechanical cleaning out of dirt and lint from pockets and trouser turn-ups is now finding favour in practically every factory where hygienic operating conditions are appreciated. Further study of the benefits accruing from the use of these brushing machines reveals a considerable and welcome drop in absenteeism, a state of affairs often directly attributable to the inhalation of dust and foreign matter released into the atmosphere by the older method of hand brushing. Another type of machine for cleaning pockets employs a suction nozzle as the means of removal.

Where holes are present in pockets, a search of the ends of jackets,

coats, and waistcoats is especially necessary, as the soiling matter usually found in the pockets will be deposited at the bottom of these garments.

In white-spirit plants, particular attention should be paid to the removal of all matches and match-heads as these always constitute a fire hazard in such types of factories.

The turn-ups of trousers, turned-back cuffs on coats, and the top of sewn pleats at the point where the stitching ends, should all be examined for fluff and dirt, and brushing carried out where required.

A careful watch should be maintained for pins and needles, especially under the lapels of garments and, when detected, they should be removed. If wedged in a dry cleaning machine or tumbler, these articles give rise to a lot of trouble, a single pin being capable of causing dozens of tears in successive loads if not discovered.

Thorough scrutiny

Buttons, which may not have been removed in the reception department, should be thoroughly scrutinized for three main types; those which are liable to dissolve, those which are liable to chip, and those which are liable to bleed.

Polystyrene buttons, which melt in solvent, are usually glass-like in appearance, but if any doubt exists a finger moistened in acetone and applied to the *back* of a button will soon reveal if it is of a type likely to dissolve, as this class of button will adhere to the acetone-moistened finger.

Glass buttons are liable to chip, as also are those of moulded plaster of Paris. Many of these moulded plaster of Paris buttons are of intricate design and very often have been exclusively made for a customer and painted by hand. The removal of such buttons is imperative as it is not possible in many instances to obtain replacements and, where it is possible, the cost is high.

Coloured buttons of bright hue and those of dark colour may be composed of vegetable ivory, and of a type that bleeds either in solvent or subsequent finishing operations. To test, if in doubt, place the garment on a garment press so that one button is directly under the top buck, place a piece of cloth under the button to protect the garment, close the head of the press, and steam. If the button is prone to bleed, it will mark off on to the cloth.

Though taking time, the replacement of all buttons which have to be removed is a necessity, if the firm is to maintain a reputation for *quality cleaning*.

Rhinestones require examination, as many of the present-day

types are only cemented into plastic bases, and are liable to drop out during the cleaning process if the cement is solvent-soluble. Immersion of one rhinestone in solvent for a few minutes is all that is necessary to establish whether or not it will stand dry cleaning.

Raincoats and wind-cheaters are prone to have interlinings of rubber or polyvinyl chloride sheet and, as the first will dissolve and the second will go hard (owing to loss of the plasticizer) during the cleaning cycle, these garments must not be sent to the dry cleaner, but be diverted to the wet cleaning department, providing the colour and material will stand wet processing. If not, customer must be advised that removal and replacement of the interlinings, at extra cost, is necessary.

Particular attention should be given to all fur-trimmed garments, to ensure that the fur is not of the stuck-on type which disintegrates in dry cleaning.

Suede-like materials may be of genuine suede leather, cloth with a suede-simulated finish, or imitation suede. Do not send imitation suede for dry cleaning, as the latex or rubber cement with which the pulverized cotton or rayon fibres are affixed will dissolve and the suede effect will be lost, in addition to the garment becoming limp and ragged. The imitation type of suede can usually be detected by the rubbery handle of the material.

When garments have been prepared, they should be classified in such a manner as to ensure the best possible results after cleaning. Do not be misled by those who advocate only two or three classifications. Good cleaning can only be obtained with unfailing regularity if proper methods are employed. Firstly, it should be a golden rule not to mix light-weight and heavy-weight garments as this practice often leads to fabric distortion and, secondly, light-coloured and dark-coloured garments should not be mixed together as the dark garments are liable to give rise to transference of dark-coloured lint to light-coloured garments, and vice versa.

The following classifications are those which are practised in all good quality cleaning establishments, and if adhered to will soon build up a record for *quality cleaning*.

Heavy woollens

This classification includes overcoats, suits, costumes, and dark flannels, and it should be further subdivided into light colours and dark colours.

Light-weight woollens

This classification includes ladies' dresses, light-weight coats, Palm