

PREPARATION OF A MOTION PICTURE TO AID IN
TEACHING CLOTHING IN JUNIOR HIGH SCHOOL
HOMEMAKING CLASSES

by

ELLEN FAIRBANKS

A THESIS

submitted to

OREGON STATE COLLEGE


in partial fulfillment of
the requirement for the
degree of

MASTER OF SCIENCE


August 1949

ADVANCE BOND
Chas. L. BROWN Paper


APPROVED:




Professor of Home Economics Education
In Charge of Major



Head of Department of Home Economics Education



Chairman of School Graduate Committee



Dean of Graduate School

Margaret E. Anderson, Typist

ACKNOWLEDGEMENT

The writer wishes to acknowledge the help of the following persons whose assistance made this study possible: Miss May DuBois, Head of the Department of Home Economics Education, Oregon State College, and Miss Isabella McQuesten, Associate Professor of Home Economics Education, Oregon State College, for their guidance throughout the development of this study. She also wishes to give recognition for the assistance provided by others: Mrs. Clara Edaburn, Associate Professor of Clothing, Oregon State College, for checking the clothing techniques used in the motion picture; Dr. William C. Reid, Director of the Audio Visual Department, Oregon State College, for advice given on the shooting scenario; Mr. Don Calamar and Mr. Stan Roberts, Santa Barbara, California, for their help and advice with motion picture photography; the Misses Cleora Ruby, Marybeth Edaburn and Joy Ellen Fairbanks, for their participation as performers in the motion picture; and Charles Fairbanks, Jr., who assisted as equipment technician during the filming of the motion picture.

NOTE

If any reader of this thesis is
interested in having additional infor-
mation about the film Hanging and Finishing
a Hem, they may contact:

Mrs. Ellen Fairbanks
628 W. Micheltorena Street
Santa Barbara, California

TABLE OF CONTENTS

<u>Chapter</u>	<u>Page</u>
I INTRODUCTION	1
The Purpose of This Study	1
Statement of Homemaking Education Philosophy	1
Statement of General Education	2
Statement of Vocational Education	3
Statement of Philosophy of Teaching Clothing	4
The Setting and Limitation of This Study	5
Statement of the Problem	9
II REVIEW OF LITERATURE AND PROCEDURE	11
Introduction	11
Part I	12
Types of Visual Aids	12
Motion Pictures	14
Characteristics of Educational Films	16
Check Sheet for Evaluating an Educational Film	21
Minimum Equipment Necessary for the Production of an Educational Film	23
Techniques for Filming	24
Editing the Film	28
Sound Pictures	29
Part II	31
Introduction	31
Outline for Teaching Beginning Clothing	31
Review of Audio-Visual Aids	31
Ascertaining the Clothing Construction Processes Contained in Certain Available Educational Films and Other Visual Aids	37
Clothing Techniques Not Included in the Available Educational Films Studied	44
Steps in the Production of the Film for the Study	45

<u>Chapter</u>		<u>Page</u>
III	THE MOTION PICTURE "LEARNING TO SEW"	49
	Introduction	49
	Part I	51
	Preliminary Scripts for <u>Learning to Sew</u> .	51
	Part II	94
	Script for <u>Hanging and Finishing a Hem</u> .	94
	Preview and Evaluation of Work Print . .	109
	Summary	115
IV	SUMMARY	116
	Review of Procedure	116
	Conclusions	119
	Recommendations	122
	Future Plans of Author	123
	Suggestions for Further Study	124
	BIBLIOGRAPHY	126
	APPENDIX	131

ADVANCE BOND

W. H. BROWN CO.

LIST OF ILLUSTRATIONS

	<u>Page</u>
I. Final Production Scenario	101
II. Close-Up Scenes Presented in the Film <u>Hanging</u> <u>and Finishing a Hem</u>	102

PREPARATION OF A MOTION PICTURE TO AID IN TEACHING CLOTHING IN JUNIOR HIGH SCHOOL HOMEMAKING CLASSES

Chapter I

Introduction

The Purpose of This Study

The purpose of this study is to plan a motion picture or a series of short motion pictures which is the outgrowth of at least one teacher's felt need for additional tools for teaching the clothing area of a junior high school homemaking program. This particular study is limited to the development of an audio-visual aid presenting some techniques of sewing. It developed from the writer's long experience in teaching clothing and her vital interest in audio-visual education, as well as her definite need for aid in teaching clothing skills more effectively in a shorter length of class time. She hopes that it will serve as one device to make it possible to have time to reach the larger purposes of homemaking education in the junior high school in which she teaches.

Statement of Homemaking Education Philosophy

Homemaking education is that part of education for home and family living which is centered on home activities and relationships and which enables the individual to assume the responsibilities of homemaking. (21, p. 191)

This definition of homemaking education expresses the philosophy that has been exemplified in homemaking programs across the nation for the past twenty-five to thirty years.

It recognizes first that homemaking education is only part of a program of education for home and family living. Many other subject matter areas at all levels of education make their contributions. This definition does indicate that homemaking education should be part of every young person's general education if by general education is meant that part of education which equips a person for his life as an individual, as a citizen, and a worthy home member.

Statement of General Education

As far back as 1918 the Commission on the Reorganization of Secondary Education of the National Education Association recognized the need for homemaking education when they set up worthy home membership as one of the Seven Cardinal Principles of Education. More recently, in 1938, the Educational Policies Commission of the National Education Association, when formulating a statement of policies for education in the United States, divided the purposes of education into four areas and four major objectives. One of these areas was that of "Home, family and community living." The objectives of human relationships were broken down into:

- Respect for humanity
- Friendship
- Cooperation
- Courtesy
- Appreciation of the home
- Conservation of the home
- Homemaking
- Democracy

Statement of Vocational Education

From the first of the Vocational Acts, Home Economics has been tied with the first two original areas of Vocational Education: Agriculture, and Trade and Industry. The authors of the first vocational education bills recognized that working conditions and improved earnings for workers in agriculture and industry would be of no value unless the wives of these workers utilized that financial increase satisfactorily. Home Economics was then added to the original bills so that women could receive homemaking education while the men received education for improving their earning capacity. So, today, Home Economics is still a part of Vocational Education. Funds are used to prepare certain types of workers for specialized earning fields in Home Economics, but it is more important that it is recognized as fundamental education for that area of living in which all people, men and women, have a share -- homemaking.

Thus it is seen that homemaking education is a part of education for home and family living and may be considered either as general education or as vocational education. This basic concept has been a part of the philosophy of homemaking education for thirty years, although it may not have been a part of the practice in some schools. The curriculum of homemaking education

today expresses its philosophy as to its place in general education and vocational education. Certainly the trend in any curriculum development program has long been away from the original concept of cooking and sewing to one which includes not only the areas of clothing, foods, and nutrition, but also child development and care, family economics, family relationships, and housing, home furnishing, and home equipment.

Statement of Philosophy of Teaching Clothing

Clothing is only one area of this total homemaking program. The teaching of clothing involves helping young people to become intelligent consumers through planning for their own and their family's clothing needs, through purchasing supplies for constructing clothing, through constructing clothing, and finally through caring for their clothing. Furthermore, it helps young people to develop sound consumer habits through selecting ready-made garments.

This area of homemaking offers opportunities to contribute further values which have not yet been explored fully by homemaking teachers and students.

Vocational Education in the Years Ahead puts it well when it says:

One of the chief problems faced by teachers in this area /clothing/ is the problem of providing learning experiences for students that will

really help them to understand the social and economic problems which have developed through the years in all parts of the world as man has tried to meet his basic clothing needs. To give students increasing insight into the relationships which exist between their clothing wants, their behavior in satisfying these wants, and the consequences of this behavior, is to assist them with one of the most important steps in their own self-education. (21, p. 210)

The Setting and Limitation of This Study

The writer is a teacher of homemaking in La Cumbre Junior High School, Santa Barbara, California. Her responsibility consists of acting as head of the four-teacher Home Economics Department of this school, as well as teaching homemaking. For twenty-one years she taught foods and clothing and closely related subjects. In 1947 the program in Home Economics of the Santa Barbara City Schools underwent a change. The La Cumbre Junior High School replaced a year of clothing in the seventh grade and a year of foods in the eighth grade with one semester of each in the seventh grade. Clothing as an elective in the ninth grade was discontinued. Instead, a complete homemaking program was required of all ninth grade girls. These ninth grade classes were re-imbursed under the provisions of the George-Barden Act. Now, instead of a full year being devoted to one area of Home Economics such as clothing, not more than ten weeks of a thirty-six-week school year is spent on clothing in the ninth grade.

All of this has meant that the homemaking teachers in La Cumbre Junior High School must reevaluate their teaching methods and find more effective ways of teaching their students. They are faced with the problem of teaching girls to sew in a shorter period of time than before 1947. Formerly, their classes met daily for one fifty minute period. Under the earlier regime, this schedule gave them ample time to teach a number of the phases of clothing thoroughly. Today, under the program that is not a new trend in education but which is new to this school, teachers have had difficulty in finding enough time to teach the skills of clothing construction.

Upon entrance into junior high school as seventh graders the girls who make up the classes which the writer teaches are very interested in sewing. Many of them have never had an opportunity to sew at home. They are active, enthusiastic youngsters who like to "do things". They are primarily interested in themselves. Homemaking activities, therefore, must be based on these interests. This means that each article to be made should be personalized, something the girls can wear and display, something that can be made in a comparatively short period of time, and something that includes the basic skills of clothing construction a junior high girl should know.

Large classes and short periods mean that the classes should be democratically and systematically organized. Effective teaching methods should be used if the girls are to learn the basic skills on which future work is developed. Furthermore this means that a teacher needs to select fundamental materials. She needs to teach a few things and teach them well. The fundamental purpose of the junior high school is general education. Far too frequently, however, in trying to provide a broad education, the junior high school teacher may forget she is also laying the foundation for future learning. She may skim the cream by trying to "cover the subject" and this practice may often result in failure to teach anything thoroughly. Recognition of the fact that students will learn only what they are ready to learn also means that the delimitation of the junior high school clothing unit is very necessary.

Later, as previously indicated, when these seventh grade girls become ninth graders, they are all required to take the course in general homemaking. Thus, whereas the ninth grade teachers in La Cumbre Junior High School previously had groups of girls who elected clothing because they were especially interested in sewing, they now have students with varied interests and abilities. Combined with this problem are those of overcrowded

classes and the fifty minute class period. Ingenuity is necessary to do effective teaching in the present classes. This situation offers a challenge to even an experienced teacher.

Under these conditions, it is difficult for all pupils to grasp the meaning of talks, demonstrations, discussions, or even displays of models. The pupils seated in the rear of the classroom might have particular difficulty in seeing and hearing. The outcome is that the teacher must repeat her demonstrations a number of times from different positions in the classroom in order for all to see and hear. In addition there are always those who need individual instructions or further demonstrations. Needless to say, such additional help takes up a considerable amount of time which, at the best, is very short.

Facing this problem, the writer felt the need of an effective audio-visual teaching aid, which would enable the entire class to see and hear at the same time. This meant that a device had to be found or one created that would present the proper handling of sewing equipment and the necessary instructions for establishing good sewing techniques. Furthermore the device or method selected needed to be one that would be easily understood and at the same time would show in a quick, clear, and concise

way the details of the desired skill.

Dorris (6, p. 3) says, "Much is said in recent times about efficiency in work and economy of time. These two factors are just as necessary and important in the educational field as in industrial and commercial life. Hence there is need of finding as many effective service agencies as possible to increase the efficiency of the teaching process. Among these agencies is to be listed whatever increases the appeal and clarifies the matter to be mastered for such an agency aids economy and thus frees time for other efforts."

It is pointed out in Vocational Education in the Years Ahead (21, p. 210):

There seems to be considerable promise for clothing education in some of the teaching devices worked out in connection with wartime military and industrial training programs. The usual way of teaching sewing skills can be improved through time and management studies and moving pictures which illustrate simple processes step by step.

Statement of the Problem

Because the writer teaches in a school where (1) the homemaking education curriculum includes all areas of Home Economics with clothing as only one phase; (2) homemaking is being required of all girls in junior high school; (3) the allotted time for homemaking class is limited; (4) the classes are large; (5) the allotted time for any one unit in homemaking is limited, she feels a definite need for an effective teaching aid to help girls develop their skill in sewing.

Therefore, the purpose of this study is to plan a series of motion pictures to be used in teaching clothing construction techniques to junior high school girls. One of the series will be produced as a part of this study.

Although homemaking education is planned for all ages of men, women, boys, and girls, and at all levels of the educational program, this study is limited to consideration of a clothing unit which is only one subject matter area of a broad homemaking program offered to junior high school girls. The study is also limited to the problem of developing one type of teaching device, an audio-visual aid, to be used in teaching one of the areas of clothing.

Chapter II

Review of Literature and Procedure

Introduction

A homemaking teacher uses many audio-visual aids in her teaching of clothing. She demonstrates some of the phases of clothing as: straightening material, shrinking material, fitting a dress, cutting bias, and hanging the hem of a garment.

She employs objects or models of objects as essential teaching aids, such as: exhibits of textile fibers, examples of seam finishes or of construction stitches, swatches of materials of different fibers as well as of different colors.

Wall charts and different forms of still pictures are constantly used to provide illustrations of sewing techniques, information on clothing selection or color selection, and directions for good grooming.

All of these teaching aids are indispensable, but no one of them is enough. The writer felt the urgent need of another aid to help her in the teaching of a unit in beginning clothing construction to a class of home-making girls of junior high school age.

In order to determine what type of teaching aid would serve this purpose best, it was necessary for the writer to review literature in the field of audio-visual

aids to determine the procedure to follow in making the study. Hence the remainder of this chapter includes a combination of the procedure followed in the present study, documented by authorities in the field of audio-visual education. It is divided into two distinct parts. Part I is concerned with different types of visual aid used in education, as well as a general review of the literature on educational motion pictures. This section also gives the steps for the preparation and production of educational films. The emphasis in Part II is on what is taught to junior high school girls in the clothing unit of home-making classes at La Cumbre Junior High School. It also contains a review of films and other visual aids available for use in teaching clothing; and it lists the clothing techniques needed to be included in the films planned as a part of this study. Finally this section presents the steps taken in producing the motion picture "Hanging and Finishing a Hem".

Part I

Types of Visual Aids

What is a visual aid? The writer found that a recognized authority (12, p. 9) has defined it as any picture, model, object, or device which provides concrete experience to the learner for the purpose of: (1) introducing, building up, enriching, or clarifying abstract

concepts, (2) developing desirable attitudes and (3) stimulating further activity on the part of the learner. The various visual aids (12, p. 9-16) may be classified and briefly described as:

(1) The School Journey. By this means the student is brought in direct contact with the situation. It is considered the most accessible and least expensive of visual aids.

(2) Museum Material. This deals with anything of three dimensions, for whatever students can see and touch fascinates them. This may be a regular object or a model of an object in miniature or "mock up" form.

(3) Motion Pictures. The motion picture has become one of the most powerful aids to education, for it adds motion to the pictorial experience. With the addition of sound and color, the illusion seems real.

(4) Still Pictures. These are the most readily available of the visual aids. They may be obtained from magazines, newspapers, books, or they may be purchased from commercial houses. Different forms of these are:

(a) The stereograph, which is a picture that gives the impression of having three dimensions

when viewed through a stereoscope. It is used for individual instruction.

(b) Lantern slides, which produce pictures of two dimensions when projected on the screen. These can be used readily for class instruction to show steps in a process.

(c) The film strip, which is a roll of film carrying positive images on a screen. Some are accompanied by sound recordings and others by scripts.

(d) The flat picture, which may be found in newspapers, magazines, advertising displays, and books. Any picture may be projected for class instruction by the use of the opaque projector.

(5) Graphic Materials. These helps include cartoons, maps, charts and graphs.

As a result of this study of different types of visual aids, the writer concluded that the motion picture would best serve the needs in her teaching situation. Her thinking in this matter was influenced by the authorities whose opinions are presented in the following section.

Motion Pictures

Authorities on visual education expressed a common opinion that motion pictures have many advantages over other visual aids. They all agree that the motion picture

is a powerful medium of education, for it is effective in establishing ideas, attitudes, and actions of people.

Hoban (10, p. 28) expresses the opinion that pictures are able to perform one or a combination of three functions, namely: (1) to show what something looks like, (2) to show how something works or how it is done, and (3) to show how something happens. Any type of picture can show what something looks like, but only a motion picture can show how something works or how it is done or how something happens. This is because the motion picture is unique in that it can portray continuity of action. In performing this function the motion picture has at its disposal all the powers of the telescope and the microscope to manage distance and its own unique power to manipulate time.

A motion picture film, then, would be an effective medium by which to demonstrate the steps or techniques of any skill, making the procedure visible to all pupils and from any position in the classroom. Dale (3, p. 195) brings out the fact that the motion picture is a group device, and that one of the great values of a film is that it can be used for group showing. He also emphasizes the fact that no machine can displace a teacher but that the machine can help the teacher to make her teaching more effective.

Hoban (11, p. 70) warns us that educational films must deal cogently with facts, ideas, and principles which must be presented in such a way that they will be understood by specific age and grade levels.

To quote Hoban (10, p. 20):

School films must fit into the curriculum; they must help teach what the school is intended to teach. Many films made for the theater do fit into the curriculum of the school and others may be edited so as to contribute to the curriculum. But the films that are to serve the curriculum best should be made exclusively for school use, geared into the interests and abilities of children of different grades, and closely correlated with the basic subjects and objectives of the school.

Gramet (4, p. 294) believes that an experienced teacher who is interested and has developed some ability in motion picture making can make a definitely worthwhile contribution by making films which are suitable for teaching aids. Hoban (11, p. 104), in writing about demonstration teaching films, seconds this belief when he says:

With this kind of teaching film, . . . more preparation, more planning, more rehearsing, more thought, more timing, more selection of just the right delivery goes into the ten, twenty, or thirty minutes of instructional time occupied by the film than almost any other comparable period of teaching.

Characteristics of Educational Films

After due consideration of the types of audio-visual aids the author decided to use a motion picture or a series of short motion pictures to serve as the aid she

would develop for teaching clothing to junior high school girls. The over-all title selected for the film was "Learning to Sew", with the topic of each individual short film to be used as a sub-title. Investigation into the characteristics of educational films showed that authorities (4, p. 260) (10, p. 62) (11, p. 57-58; 92; 97-98; 100; 103) believed the following items were essential criteria for selecting and judging any good educational film:

1. The contents of the film should take into consideration the experience and the background of the students.
2. The subject matter must have a relationship to the interests, abilities and general needs of a specific age group.
3. The film should provide for the extension of the experiences by both the picture and the words. The students should be shown what something looks like, as well as how it works or how it is done; and through the commentary they should acquire the right names for the processes.
4. The film should motivate the students to try to accomplish the activities portrayed.
5. Action in a picture is more effective than people talking about action.

6. Light humor, unusual association, repetition, and dramatic incidents are factors that may help to determine whether or not the film contents will be remembered. Too much humor in a film, however, may weaken it as a teaching aid.

7. An educational film must be so paced that the audience can absorb what is shown on the screen.

a. The scene must remain on the screen long enough for the audience to absorb the information.

b. Complicated scenes should be repeated to ensure adequate absorption.

c. A pause on the screen following an important sequence helps to create a "mental settling down".

d. Repetition with variation is known as the "law of learning"; there must be a variety of scenes and situations relating to the pattern that the film intends to develop.

8. In general the story treatment, characterization, or other uses of interest-catching techniques may be used in a teaching film.

9. A demonstration film should contain the three-fold approach, that is, telling, showing, and doing.

10. The commentary must be:

a. simple but explanatory.

- b. interest provoking and question raising.
 - c. in the language understood by the specific age group it is intended for.
 - d. capable of directing the audience toward a mastery of the subject.
11. Teaching films require a particular basic structure.
- a. The film should open on a familiar situation which calls for a certain knowledge in order to meet the situation.
 - (1) The audience identifies itself with the situation and subject presented in the film.
 - (2) The situation supplies an incentive to pay close attention to the film, and thus learn from it.
 - b. The information or skill is presented in detail with commentary suitable to the age, experience and background of the audience.
 - c. After the detailed demonstration and explanation, the main points of the situation are reviewed and summarized.
 - d. The problem is turned toward the audience and the film closes in such a way that the audience is left with a desire for continued learning.

12. After completion of the explanation, the film often returns to the opening situation or to the same group in a similar situation.

13. At the end comes a final clinching summary and review of the main points.

14. A new teaching technique is "leaving the film open at the end".

a. The subject is turned to the audience.

b. The audience is not fully satisfied.

(1) It has questions that it must answer for itself.

(2) It is challenged to make further inquiry.

(3) It feels obliged to go and do in like manner.

From these suggestions the device on the following page was set up to evaluate an educational film. The device will be used later in chapter III to evaluate the work print of the film that is the outcome of this study.

ADVANCE BOND

C. W. BROWN / 2092

Check Sheet for Evaluating an Educational Film

Title _____

Characteristics	Yes	No
1. Content on level with experience and background of pupils		
a. Opens on familiar situation		
b. Calls for certain knowledge to meet the situation		
c. Motivates students to try to accomplish the activities portrayed		
2. Subject matter meets		
a. Interests		
b. Abilities		
c. Needs		
3. Provides for extension of experience		
a. Shows what something looks like		
b. Shows how it works or it is done		
c. Presents skill in detail		
d. Gives the right names for the processes in commentary		
4. Contains factors for remembering		
a. Light humor		
b. Unusual association		
c. Repetition		
d. Dramatic incident		
5. Interest catching techniques		
a. Story treatment		
b. Characterization		
c. Others		

Characteristics	Yes	No
6. Paced for absorption <ul style="list-style-type: none"> a. Long enough on the screen b. Complicated scenes repeated c. Repetition with variety of scenes and situations 		
7. Contains the three-fold approach <ul style="list-style-type: none"> a. Telling b. Showing c. Doing 		
8. Simple Commentary <ul style="list-style-type: none"> a. Interest provoking and question raising b. In language understood by the specific age group c. Directs students toward mastery of the subject 		
9. Summary at end <ul style="list-style-type: none"> a. Final clinching b. Review of main points 		

Minimum Equipment Necessary for the Production of an Educational Film (4, p. 296)

After deciding to make a motion picture, the author's second step in this study was to determine the minimum equipment necessary for an educational film. From reading matter in the field of cinematography, from information gathered in classes in visual education at Oregon State College, and from discussion of the problem with both amateur and professional photographers, the writer has decided that the following is the minimum list of equipment necessary for the production of a sound film in color:

1. A 16 mm camera with a projection speed rate of twenty-four frames per second. It is essential that the camera have a film capacity of one hundred feet.
2. A tripod in order to hold the camera stationary. This is considered almost as necessary as a camera.
3. Photo-flood bulbs as a source of light for indoor film making. It is necessary that these have suitable reflectors. The photo-flood bulbs come in three sizes; no. 1 is approximately equal to a lamp of 750 watts, no. 2 is twice as powerful as no. 1, and no. 4 is four times as powerful as no. 1.
4. A suitable lens. The size of the lens is determined by a marking of "f" followed by figures. A

lens marked f/1.9 is more versatile than one marked f/3.5 as this lens can take pictures with much less light. A wide angle lens is used to include a greater area without moving the camera. The telephoto lens is used to magnify the subject.

5. A light exposure meter. This is essential to establish the correct lens setting.

6. A tape for measuring distance. A steel measure is preferable.

7. Type "A" kodachrome color film for indoor picture making.

8. A good editing outfit. This should consist of viewer, splicer, and rewinds.

Techniques for Filming

In order to make a motion picture to be used as a teaching aid the writer next had to determine the basic positions in filming a picture. She gathered this information from classes in audio-visual education, from the literature on the subject, and from her own experience.

The wise utilization of basic positions of the motion picture camera is essential for satisfactory productions. There are three main positions: the long, the medium, and the close shots. These positions may be varied by placing the camera in between any two of the positions named.

1. The long shot, which in filming is abbreviated LS, is taken far enough away to include the whole scene. It establishes the setting or locality of the specific action which is to follow, and introduces the subject to the audience.

2. The medium shot, or MS, is taken, as the name implies, at a middle distance. This shot narrows the subject down and identifies any important parts of the scene or action being performed.

3. Semi-close-up, which is abbreviated SCU, is taken by placing the camera between the medium and the close-up positions.

4. Close-up, or CU, provides detailed observation of the important parts or action being observed. This is a fundamental scene which takes up almost the whole screen when projected.

5. Extreme close-up, or ECU, is used on very small objects.

Angle shots add variety to the basic shooting positions. They are usually made after the all-inclusive scene by moving the camera into different positions. Most angle shots should be close-ups. One seldom has too many close-ups. Right angle shots are to be avoided.

Another variation in the basic shots is the use of the tele-photo lens to produce telescopic photography. It

is used to span distance or to increase the size of a remote object or to enlarge that which is close at hand but too small to be seen comfortably. It can easily be seen that as the size increases, the size of the field of action in a shot decreases.

Color in motion pictures helps portray distance. Contrasts are enhanced by its use, and color gives a feeling of aliveness. To make colored films indoors, one must use Type "A" Kodachrome film, which is an indoor film. The use of photo-flood lights with this type of film is a recommended procedure.

It was next necessary for the author to organize her information about shooting the picture. (5, p. 123-124) Since a motion picture camera can be placed at various angles, motion pictures are particularly adapted to the teaching of the skills. A small space with sufficient lighting and a minimum number of characters is required for producing a demonstration teaching film. (11, p. 104-105) When this has been arranged and the equipment selected there are some rules one may follow before photographing in order to avoid wasting expensive film:

1. Determine the proper lens setting by using a reliable exposure meter. A reading should be taken for each situation or change in the setting.

2. The lenses should be kept immaculately clean, for the least bit of dust or oil has a tendency to distort the picture. A soft, lintless linen cloth may be used to clean a lens, but it is best to use lens cleansing tissue which is made especially for this purpose.

3. The camera should be kept clean and well oiled in order to produce the best results. It is advisable to follow the instruction book that comes with the camera.

4. In order that the camera will be steady at all times the tripod should be used. It is impossible to hold a motion picture camera steady in the hands.

5. An entire scene should be photographed at one time. A simple rule is to count slowly to ten for any scene. The length of the scene may be increased as needed to complete the action being taken. Short exposures or bits are not satisfactory and are wasteful of film.

6. To insure satisfactory results, action shots should be taken at an angle of about thirty degrees.

7. Proper filters should be used whenever possible as they help to give a truer recording of color gradations and smoothness of the detail.

8. Front lighting of people is best on color film.

9. A roll camera should be loaded in the shade or dim light in order to prevent the edges of the film from "fogging".

10. The photographer should not "pan" the camera. If the camera is turned from one point to another, except at very high speed, the result will be a jerky picture.

11. Half-speed and slow motion variations should be used only when necessary. To slow down action, pictures may be taken at sixty-four or thirty-two frames per second, which, when projected at twenty-four frames per second, slows down the motion. Upon projection, pictures taken at half speed register rapid action on the screen.

12. Framing (7, p. 92) is any use of the foreground to help set off the background by producing depth and contrast which prevents flatness. For this the finder on the camera is used.

13. The art composition principle that the horizon line be one-third or two-thirds of the way up in the picture applies also to motion pictures. The nature of the scene determines which proportion should be used. At all times there should be picture balance.

Editing the Film

After the film has been exposed and processed, editing is necessary. This consists of putting the right things in the right places and inserting proper explanatory titles ahead of each scene. Suggestions that will assist in editing are: (5, p. 124)

1. Cut out scenes of poor quality, for if left in they will spoil an otherwise good film. If necessary retake the scenes that are inferior and splice them into the proper position.

2. Attractive titles should be used. Inferior and cheap-appearing titles may spoil a film that is otherwise satisfactory. Titles can be made by the amateur, but in general it is more satisfactory to have an experienced title maker prepare them. Furthermore, he is able to make suggestions as to the most attractive way to arrange the titles.

3. Splice the film carefully for good splices are essential if the film is to run smoothly in the projector. Follow the instructions that come with the splicing outfit.

4. Never show the film to an audience until it is edited, for invariably an unedited picture leaves a poor impression.

5. If the film is one that is to be used extensively have a duplicate negative prepared from which additional prints may be made. Save the original film.

Sound Pictures (4, p. 294)

The correct speed for sound on film is twenty-four frames per second instead of sixteen frames as in silent pictures. It is considered less costly for an amateur to

make a sound film if he takes the picture in the normal way except at a speed of twenty-four frames per second.

After the film is completed and edited have a recording laboratory add the sound track. When the sound is added after the final editing it will run smoothly throughout the picture.

In order to accomplish this, one must have a work-print made from the original film. The editing is done on the work-print. When the film is satisfactory, prepare a typed narration script. This script needs to have about three words per foot of edited film. The narration is spaced and written parallel to the scene description. Next the background music is selected. Other instructions that may be necessary are written on this sheet. The edited work-print, narration script, music and other instructions plus the original film are then sent to a recording laboratory. The recording laboratory edits the original film according to the work-print and adds the sound track.

Part II

Introduction

In order to outline the film to be made in this study it was necessary (1) to determine exactly what the writer teaches in clothing units to junior high school girls; (2) to review the audio-visual aids which deal with the teaching of clothing and which are now available; (3) to check the contents of the available films against what she teaches in order to determine in what areas of her teaching there would be no film available; (4) to set up the film to be produced.

Outline for Teaching Beginning Clothing

In order to ascertain precisely what films were needed for teaching sewing to junior high school girls in Santa Barbara it was necessary to outline the subject matter included in the clothing unit. A detailed outline of this subject matter is included in the appendix (Page 131). This outline is documented by selected reference books for high school homemaking classes.

Review of Audio-Visual Aids

All available motion pictures and filmstrips related specifically to the subject of sewing were previewed and studied carefully by the writer. Wall charts and other visual aids on the subject were also studied as sources of teaching aids.

The film strip Suzie Makes a Dress (30) which is sponsored by Simplicity Pattern Company, Bates Fabrics, Inc., and Talon Educational Service is an excellent teaching aid for many of the steps in clothing. It is especially effective for techniques in which it is not necessary to show action. It gives rules for choosing a pattern and guides for choosing a fabric. It tells how to determine the amount of material needed and how to determine what trimmings are necessary. It illustrates very clearly how to fold material in order to cut bias; how to draw a crosswise thread in order to have a cutting line to even off the ends of material; also how to straighten material by pulling diagonally. It illustrates how to alter patterns, how to lay the pattern on the material, how to cut out the garment with the notches cut "out" in points and not into the seam allowance. It shows how to make and cut tailor's tacks. Steps to follow in setting in a sleeve are given. Three illustrations of finished plain seams are shown, -- pinked, overcast, and turned and stitched. It illustrates how a basted dress should fit and gives pointers on how to stitch. Seven steps show how to put in a slide fastener. It is sent free to a home-making department so that it may be available at all times.

Several 16 mm sound motion pictures that show some phases of clothing construction have been produced either

in color or in black and white. Associated Films are the distributors for a motion picture in color entitled Girl Scouts Are in Fashion (31). This picture was produced by Bates Fabrics, Inc., in conjunction with the American Girl Magazine. It shows a troupe of Girl Scouts interested in a home sewing project. Emphasis is placed upon pattern selection for the individual type, also upon color suitable for the individual in relation to hair, eyes, skin. Fabric selection in regard to durability, color fastness, shrinkability as well as suitability for the pattern selected is brought out. Very little is shown of the actual construction of the garments. It shows girls modeling dresses and play clothes that either have been made or can be made at home.

Young American Films, Inc., have produced a series of six short motion pictures on sewing. These are in black and white. Sewing Simple Seams (36) was produced under the advice of Thelma Weddel, Home Economist at Haskell Institute. The film shows the preparation and sewing of six simple seams that are commonly used in sewing. Finished garments are shown in which the seams being demonstrated have been used. Emphasis is placed upon the idea that simple seams are the basis of all good sewing. The selection of the seam depends upon the type of garment and the kind of material used. The first step in each case was to make a plain seam. The film shows how plain seams are

pinked, overcast, turned and stitched, or bound. It further shows top-stitching of plain seams to strengthen the seams or for decorative purposes. Finally catch stitched seams are shown for heavy material. The last step in all six of the methods of finishing the plain seam is shown to be careful pressing in order to insure good tailoring.

Helen Lohr, Professor of Home Economics, University of Kansas, acted as advisor for the other five films. Sewing Fundamentals (33) begins by demonstrating a good sewing position. Sewing is one of the practical arts, and although the tools for sewing are simple they must be understood and used correctly. The film describes (1) thimbles -- selection and use; (2) pins -- size, selection and use; (3) needles -- selection, size, kinds, and method of threading; (4) threads -- proper use of plain cotton, mercerized cotton, and silk; (5) measuring devices -- the qualities of a good tape measure, some manufactured gauges and how they are used, and a demonstration of how to make a gauge from a strip of cardboard; (6) tailor's chalk -- colors and use; (7) cutting tools -- the difference between scissors and shears, and their use; the use of pinking shears; (8) pressing tools -- the tools most commonly used, as the electric iron, the steam iron, pressing cloth, pressing pads, the sleeve board and the

ironing board; the difference between ironing and pressing and the use of the pressing tools; (9) the sewing machine -- the proper posture at the sewing machine and the threading of a sewing machine including pulling both threads under the pressure foot and to the back of the head with the take-up lever at its highest point so as not to pull the thread out of the needle when starting to stitch.

Sewing -- Characteristics and Handling of Materials

(34) shows the handling of cotton, wool, and rayon materials based on (1) the garment pattern to be used, (2) the purpose of the garment, and (3) the ability of the seamstress. Cotton material is recommended for the beginner, wool material for those with some experience, and rayon for advanced students.

In the film Sewing -- Pattern Interpretation (35) the markings and instructions used in commercial patterns are explained. These markings are straight-of-fabric, edge of pattern, seam lines, fold of material, center markings, darts, buttonholes. The explanation covers the four commercial patterns most generally used today; these are Simplicity, Butterick, McCall, and Vogue. Other points brought out in the film are: (1) pinning the pattern on the material with the pins perpendicular to the cutting edge; (2) keeping the work flat when cutting; (3) cutting

notches away from the pattern, not toward it; (4) using notches and other marks for their real purpose of locating the matching parts of a garment; (5) using tailor's tacks to transfer markings to the material. The making and cutting of tailor's tacks is very clearly demonstrated.

In the film Sewing Advanced Seams (32) the demonstrator first shows a finished garment in which the seam has been used. The seams demonstrated step by step are French seam, flat fell seam, tuck seam and welt seam.

Sewing -- Slide Fasteners (37) gives the step-by-step process of fitting and sewing slide fasteners in three different places: (1) the neck opening of a blouse, (2) the opening of a skirt, and (3) the placket of a dress.

A number of wall charts for classroom use are available. The Simplicity Pattern Company has put out a series of charts: Your Pattern and How to Use It (29), Your Dress Step by Step (28), What Size Are You? (27), Pattern Alterations (23), and The Best Colors for Your Type. (24) These are excellent teaching aids. They show the essential steps very clearly.

Talon Educational Service are distributors for a set of three wall charts Application of Slide Fasteners (22) which show the application of slide fasteners in neckline, as well as skirt and dress plackets. It is the writer's opinion that these charts cannot be excelled in depicting

the steps of applying zippers in the three positions named.

The Singer Sewing Machine Company can furnish wall charts for the various models of their sewing machines which show the threading of the head and the threading of the bobbin. These charts are large enough to be seen comfortably from most positions in the classroom. This company also publishes Student's Manual of Machine Sewing (19), which gives general instructions for the care and the use of the sewing machine. It also depicts and describes the principal parts of the sewing machine.

Ascertaining the Clothing Construction Processes Contained in Certain Available Educational Films and Other Visual Aids

The contents of the foregoing films and charts were checked against an abbreviated form of the outline for teaching beginning clothing (Appendix, p.131). The results of this check are given in tabular form in the following section.

Filmstrips

- ### A. Suzie Makes a Dress

Motion Pictures

- B. Girl Scouts are in Fashion
- C. Sewing Fundamentals
- D. Sewing Simple Seams
- E. Sewing -- Characteristics and Handling of Materials
- F. Sewing -- Pattern Interpretation
- G. Sewing Advanced Seams
- H. Sewing Slide Fasteners

Charts

- I. What Size Are You?
- J. Your Pattern and How to Use It
- K. Pattern Alterations
- L. Your Dress Step by Step
- M. The Best Color for Your Type
- N. Talon Wall Charts
- O. Sewing Machine Charts

Booklets

- P. Student's Manual of Machine Sewing

Outline for Teaching

Beginning Sewing

[illegible]

The motion picture Sewing Fundamentals (33) eliminates the necessity for describing sewing equipment with the exception of the tote tray which can be easily taken care of in the classroom without the help of a visual aid.

Although the filmstrip Suzie Makes a Dress (30) and the wall chart What Size Are You? show how measurements are taken, a classroom demonstration seems necessary for beginners so that they get the action that goes with taking measurements.

Buying a pattern, altering patterns, selecting materials, straightening the ends of cloth, pulling cloth on the bias to straighten, laying the pattern on the material, and cutting out garments are illustrated in Suzie Makes a Dress (30). Pattern and material selection are also explained in the motion pictures Sewing -- Characteristics and Handling of Materials (34) and Girl Scouts Are in Fashion (31).

Although the thumb, the pin, and the rubbing tests for fabrics are not shown in any of the named visual aids, with student participation these tests can be done in the classroom.

Making a cardboard gauge, cutting thread, threading a needle, wearing and using a thimble, and pinning the material are well illustrated and explained in the motion picture Sewing Fundamentals (33). Cutting out a garment

is demonstrated in the motion pictures Sewing -- Pattern Interpretation (35) and Girl Scouts Are in Fashion (31).

Although basting is demonstrated in the film Sewing Simple Seams, the position seems somewhat awkward for young beginners.

Tailor's tacks are well demonstrated in the motion picture Sewing -- Pattern Interpretation (35). They are also shown in the filmstrip Suzie Makes a Dress (31) and the wall chart Your Dress Step by Step (28).

Learning the parts of the sewing machine, learning to use a sewing machine, threading a sewing machine, and stitching on a sewing machine may be acquired by studying the wall charts on sewing machines and the Student's Manual of Machine Sewing (19) plus a classroom demonstration with opportunity to practice. The sewing machine threaded and in position for stitching is demonstrated in the motion picture Sewing Fundamentals (33).

Plain seams and methods of finishing them are well demonstrated and covered in Sewing Simple Seams (36); the French seam is one of the seams covered in the motion picture Sewing Advanced Seams (32).

Slide fasteners or "zippers" are thoroughly demonstrated in the film Sewing Slide Fasteners (37). They are also clearly depicted in the filmstrip Suzie Makes a Dress (30) and on the Talon wall charts (22).

Clothing Techniques Not Included in the Available
Educational Films Studied

After considerable study of the foregoing information and careful checking of the outline for teaching clothing at La Cumbre Junior High School against the available visual materials, the writer concluded that the following techniques needed to be included in the motion pictures planned as a part of this study.

Knotting the thread

Basting

Making darts, including the special threading of
the sewing machine

Making lapped seam

Making the easy fell seam

Finishing edges

Turning narrow hem and use of the hemming stitch

Applying trimmings as lace and eyelet embroidery
and use of the overhanding stitch

Using bias, folding and cutting the material,
and joining ends

Gathering and shirring, by hand or by the sewing
machine

Setting in a sleeve and finishing the seam by using
the blanket stitch

Applying fasteners

Making worked buttonhole

Sewing on buttons

Sewing on hooks and eyes

Sewing on snaps

Hanging and finishing a hem -- incorporating the use
of the hemming stitch, the slip stitch, and the
catch stitch

Steps in the Production of Film for the Study

The first step in planning for the production of the film for this study was to plan sequences incorporating techniques not included in other audio-visual aids as listed in the foregoing section of this study. The details of these sequences are given in Part I of Chapter III.

The second step was to select one of these sequences to run as a "trial film". This was for production experience in order to make it possible to improve techniques of taking an educational film. The sequence selected for the experimental film was the "Worked Button-hole". A professional motion picture producer viewed the trial film when it was completed, criticized it, and offered invaluable suggestions. He recommended that in filming the motion picture for this study it would be wise to: (1) use more closeups, (2) shoot the picture from a much higher position, (3) focus the lens by measuring from the film and not from the lens, (4) advise the performers to avoid looking directly at the camera, and (5) direct the performers to steady their hands by resting the arms on the edge of the table.

The third step was to check the planned sequences for one in which a number of the listed techniques had been incorporated; this sequence would then be filmed as part of this study. Hanging and Finishing a Hem was the

sequence selected. In this sequence a number of techniques were incorporated in addition to the steps of hanging a hem; namely, basting (including the knotting and fastening of the thread), the hemming stitch, the slip stitch, and the catch stitch. Some of the techniques included in other audio-visual aids listed were also incorporated in this sequence; namely, making and using a cardboard gauge, using a thimble, and pressing.

The fourth step was to prepare a detailed shooting scenario for the film "Hanging and Finishing a Hem". An example of this scenario is given in Chapter III, Part II page 101. The shooting scenario included this type of detailed description for the sixty-four different shots which were taken for this film.

The fifth step was to invite Mrs. Clara Edaburn, a college clothing professor at Oregon State College, to check the clothing construction techniques used in the film to make sure of subject matter accuracy.

The sixth step was to ask Dr. William C. Reid, Director of the Audio-Visual Department at Oregon State College, to check the shooting scenario.

The seventh step was to direct the performers in their practice of the activities and the techniques used in the sequence. This practice was checked for accuracy by the clothing consultant, Mrs. Clara Edaburn.

The eighth step was to shoot the film. Although the film is silent, it was taken at twenty-four frames per second so that a sound track may be added at a later date.

The ninth step was to edit a work print of the film. This procedure was followed in order to avoid handling and probably marring the original film.

The tenth step was to have the work print previewed and evaluated by twenty homemaking teachers attending the summer session of Oregon State College in 1949. The Check Sheet for Evaluating an Educational Film (pp. 21 and 22), of this study was used. The tabulated results of this evaluation appears in Chapter III (p. 112).

The eleventh step was to prepare the directions for the film laboratory. A list of numbered titles was prepared. A red grease pencil was used to mark on the work print to indicate where the titles were to be placed in the film.

The twelfth step was to indicate on the work print what type of transitions was to be used from one scene to another, as: "dissolves" and "fade outs" or "fade ins". "D" was used to indicate a dissolve and "F" to indicate a fade out or fade in.

The thirteenth step was to prepare a commentary to be coordinated with the film when projected for classroom use.

The fourteenth step was to send the original film, the edited work print, and the list of titles to a film laboratory. The laboratory was instructed to prepare the titles, dissolves, and fades. They were also instructed to make a print from the original. This precaution was taken to protect the original film so that additional prints of the film might be prepared in the future.

Chapter III

The Motion Picture "Learning to Sew"

Introduction

Part I of this chapter includes a description of a series of sequences with prepared narration script for producing a motion picture entitled "Learning to Sew". It is the writer's intention to have this film made in a number of short reels. Some of the reels might be very short, others could be longer. Any one of the films might be a lesson in itself; some might be used for several lessons.

The script for "Learning to Sew" is based upon the Outline for Teaching Clothing to Junior High School Girls (Appendix, p. 131) after it had been delimited by the films and other visual aids already available as described earlier in this study.

The writer decided that the following short films were needed:

1. Making a Narrow Hem
2. Applying a Trimming
3. Preparing and Applying Bias
4. Marking and Stitching a Dart
5. Making Seams -- Lapped and Easy Fell
6. Setting in a Sleeve
7. Providing Fullness
8. Sewing on Fastenings

9. Hanging and Finishing a Hem

The production script prepared for the film "Hanging and Finishing a Hem" and teacher evaluation is presented in Part II of this chapter. The preliminary script for this film (Part I, p. 85) was revised in the light of the suggestions given by (1) the motion picture producer who previewed the "trial film", (2) Mrs. Clara Edaburn, a clothing professor at Oregon State College, and (3) Dr. William C. Reid of the Audio-Visual Department at Oregon State College.

A photostatic copy of one page of the final production scenario is given on page 101 of Part II of this chapter.

A photostatic copy of six frames of typical sequences included in the film is presented on page 102.

These detailed plans facilitated the filming of the sixty-four sequences for the motion picture "Hanging and Finishing a Hem".

When any of the other films which have been planned are produced, it will be necessary to prepare similar scenarios.

Part I

Preliminary Scripts for "Learning to Sew"

The definitions of the abbreviations used in the preliminary scripts which follow are repeated here:

LS -- Long Shot, an all inclusive scene.

MS -- Medium Shot, subject in full length.

SCU -- Semi Closeup, a more exclusive scene.

CU -- Closeup, an exclusive working scene.

ECU -- Extreme Closeup, used on very small objects.

Titler -- indicates that the camera is fastened in a titling device with a supplementary lens which makes it possible to film titles that are as small as ordinary typewriting.

Making a Narrow Hem

Scene No.	Camera Position	Description of Scene	Narration Script
1.	Titler	"Narrow Hem".	Different garments require different ways of finishing the edges.
2.	MS	Holding the material between the thumb and first finger of each hand.	To make a narrow hem hold the material between the thumb and the first finger of each hand with the wrong side of the material toward you.
3.	CU	Thumb of the left hand turning a narrow amount of the material toward the wrong side while basting is being done.	With the thumb of the left hand turn a narrow amount of material to the wrong side and baste. Keep the thumb turning down the material and continue basting.
4.	MS	The completed basted edge of the material.	
5.	CU	Thumb turning edge down a second time while basting is being done.	When the first turn has been finished, turn down the edge a second time and baste. Keep the hem even. When the second turn-down is completed, finish the hem with the hemming stitch.

Scene No.	Camera Position	Description of Scene	Narration Script
-----------	-----------------	----------------------	------------------

6.	Titler	"The Hemming Stitch".	This stitch is used to sew folded edges to material. The stitches should hardly show on the right side.
----	--------	-----------------------	---

7.	CU	The hem is over the first finger of the left hand and is held in place with the thumb and second finger.	Place the basted hem of your garment over the first finger of your left hand and hold it in place with your thumb and second finger. We will call this a "finger clamp".
----	----	--	--

8.	ECU	Fastening thread in the folded edge.	Fasten the thread in the folded edge by taking a small stitch; when the end of the thread is at the fold take another stitch but hold the needle there until you bring both threads from the eye of the needle under the point of the needle from right to left. Pull the needle through and tighten the thread. The thread is now securely fastened.
----	-----	--------------------------------------	---

Scene No.	Camera Position	Description of Scene	Narration Script
9.	CU	The right hand placing the needle into the material and taking up a yarn or two of the material from directly under the folded edge. It brings the needle through the folded edge.	With the needle pointed toward your left shoulder take up a yarn or two of the material from directly under the folded edge. Bring the needle through the folded edge. As you hem work toward yourself.
10.	ECU	Hemming stitches being done.	The smaller the stitches the better the hemming.
11.	ECU	Reverse side of the hem.	Carefully done hemming should be almost invisible from the right side.

Scene No.	Camera Position	Description of Scene	Narration Script
1.	Titler	"Putting on Lace".	
2.	MS	Hemmed material.	The material should be hemmed before putting on lace.
3.	MS	Hem and lace held together between the thumb and first finger of the left hand.	Put the right side of the lace to the right side of the hem. Hold the hem and the lace together between the thumb and the first finger of the left hand, with the lace side toward you.
4.	ECU	Pulling thread in edge of lace.	If the lace is to be gathered, pull one of the threads in the edge of the lace to give desired fullness.
5.	CU	Hem and lace held together between the thumb and the first finger of the left hand while the thread is fastened in the edge of the hem.	Fasten the thread in the hem on the extreme right hand side. Lace is put on with the overhanding stitch and it is worked from right to left.
6.	Titler	"The Overhanding Stitch".	The overhanding stitch is used to hold two finished or folded edges together, as in sewing two selvages together.

Scene No.	Camera Position	Description of Scene	Narration Script
			sewing lace on a hem, or putting a hem in a napkin or table- cloth.
7.	ECU	Hem and lace held together with the thread fastened in the edge of the hem, then the overhanding stitch is done by going over the edge.	To do the overhand- ing stitch, with the needle pointed toward you bring it through the material at right angles to the edge making very shallow stitches by catching both the hem and the lace to- gether. Keep the stitches close to- gether and all the same depth in the material. Pull the thread firmly, but not so tight that it wrinkles the edge or forms a ridge.
8.	CU	Fastening thread.	When finished fasten the thread securely as you did in the beginning.
9.	CU	Overlapping the ends of the lace; and then hemming the lapped seam.	To join the lace, overlap the ends with the pattern matching, turn the raw edges under and hem it.

Scene No.	Camera Position	Description of Scene	Narration Script
10.	CU	Spreading the two overhanded pieces, finger creasing open, and pressing.	Spread the two overhanded pieces, finger crease them open, and press from the right side.
11.	ECU	The seam from the right side.	The stitches should be almost invisible from the right side.

ADVANCE BOND

Preparing and Applying Bias

Scene Camera		Description of Scene	Narration Script
No.	Position		
1.	Titler	"Bias".	
2.	MS	<p>Girl with slip-over tops to pajamas ready to bind the edges with bias. She has with her a piece of material from which to cut the bias.</p>	<p>Some garments are faced and some are bound with bias. True bias can be stretched to fit curves. Bias as a binding is a narrow hem-like finish which shows equally on the right and wrong sides. Used as a facing it is turned to the wrong side and hemmed to the garment. If the facing is brought to the right side it is machine stitched into places.</p>
3.	SCU	<p>Girl folds the material so that the selvage runs with the crosswise thread. She pins the folded material together.</p>	<p>To make bias, fold the material so that the selvage or the lengthwise thread lies parallel to the crosswise thread. Pin into position.</p>
4.	CU	<p>Girl inserts the scissors in the fold and carefully cuts.</p>	<p>Cut the fold, being carefully not to stretch the material nor to cut a jagged edge. You now have two pieces of material with their true bias edges together.</p>

Scene Camera

No.	Position	Description of Scene	Narration Script
5.	SCU	Girl with ruler and tailor's chalk measuring and marking the width of the bias strips. She then cuts the strip.	From the bias edge measure the desired width of the bias strip; mark it with tailor's chalk and cut.
6.	CU	Girl prepares to join bias. She picks up two pieces and checks to see that the ends are selvages, or if the ends are parallel.	Before joining bias make sure that the ends of each strip are selvages or are cut on the straight of the material. The ends of the strip should be parallel.
7.	ECU	Girl places strips with their right sides together. The ends are even and parallel to each other.	Lay two strips with their right sides together and their ends parallel but with the edges even. The lengths will be perpendicular.
8.	ECU	She slips the ends along on each other until the corners extend about $\frac{1}{4}$ " on either side. She pins perpendicular to the edge and bastes.	Slip the ends along on each other until the corners of each piece extend beyond about $\frac{1}{4}$ ". Pin perpendicular to the edges and baste.
9.	CU	Girl stitching on the machine from angle to angle.	Stitch from angle to angle formed by the extended ends. This prevents a jog in the joined pieces.

Scene No.	Camera Position	Description of Scene	Narration Script
10.	ECU	Girl ties the threads together at both ends. She cuts off excess thread and clips and removes the bastings.	Tie the machine stitches at both ends. Cut off the excess thread. Clip and remove the bastings.
11.	CU	She finger creases the seam open and presses it.	Finger crease the seam open and press it.
12.	SCU	Girl folding bias in half with wrong sides together and pressing. She avoids stretching the bias by using the iron as a weight and not moving it over the bias.	An easy way to use bias either as a binding or a facing is to cut it wider and fold it in half with the wrong sides together and press. Avoid stretching the bias by using the iron as a weight rather than moving it on the bias.
13.	MS	Girl measuring the neck and armholes of pajama tops. She then unfolds the bias and cuts strips a little longer. She checks to be sure that both ends are parallel and then joins the ends.	Measure the armholes and neck of the edge to be finished and cut pieces of bias $\frac{1}{2}$ " longer. This allows for seaming. Be sure that the ends of the strips are parallel. Place the right sides of the ends together and join.

Scene No.	Camera Position	Description of Scene	Narration Script
14.	SCU	The girl pinning the two raw edges of the joined bias to the right side of the garment.	Pin the two raw edges of the joined bias to the right side of the garment. Both the garment and the bias should be smooth. Baste, remove the pins, and stitch.
15.	CU	Girl finishing with the stitching. She pulls the under thread up and ties both threads together. She clips and removes the bastings.	Tie the machine stitches. Clip and remove the bastings.
16.	SCU	She trims the edges to within 1/8" of the machine stitching.	Trim the edges to within 1/8" of the machine stitching.
17.	CU	Girl brings the fold of the bias over the raw edge to the machine stitching. She pins perpendicular to the edge.	Bring the fold of the bias over the raw edge to the stitching. Be sure that the fold is in line with the stitching. Pin in place and baste.
18.	ECU	Girl sitting and hemming the basted folded edge. She has the folded edge over the first finger of her left hand, wrong side up. Her thumb and second finger hold the hem in place. She works toward herself as she takes a	Hand hem by catching the hemming stitches in the machine stitches. Remember to hold the hem over your first finger of your left hand and to make a "finger clamp" with the thumb and second finger. Work toward yourself.

Scene No.	Camera Position	Description of Scene	Narration Script
--------------	--------------------	----------------------	------------------

stitch under a machine
stitch and brings the
needle through the
folded edge.

ADVANCE BOND

Marking and Stitching a Dart

Scene No.	Camera Position	Description of Scene	Narration Script
1.	Titler	"Darts".	
2.	SCU	Girl with piece of material on which are tailor tacks marking a dart.	Darts are used to take out fullness where you do not want it and to put in fullness where you need it.
3.	CU	Girl matching the tailor's tacks on the wrong side and pinning perpendicular to the edge.	On the wrong side of the material match the tailor's tacks that form the V and pin them together placing pins perpendicular to the edge.
4.	SCU	Girl finishing with basting the dart.	Baste in a straight line.
5.	SCU	Girl at the sewing machine preparing to stitch the dart.	Darts may be stitched either from the wide end or the point. In either case the tip of the dart should be curved slightly in the stitching to avoid points.
6.	ECU	Girl pulls the thread out of the needle and threads it with the bobbin thread in reverse order.	A convenient way to stitch darts to avoid tying threads at the tip is to pull the thread out of the needle and thread it with the bobbin thread in reverse order.

Scene No.	Camera Position	Description of Scene	Narration Script
7.	CU	She ties both threads together and winds the thread onto the spool until the knot is there.	Tie both threads together and wind the thread onto the spool until the knot is there.
8.	CU	Girl stitches, starting at the point of the dart.	Start to stitch at the point of the dart. One must have enough bobbin thread wound on the spool so that when stitching the knot does not get into the tension.
9.	MS	Girl clips and removes the bastings.	Clip and remove the bastings. Press.
10.	ECU	The tip of the dart.	There are no threads to tie at the tip.
11.	MS	The dart.	Narrow darts are left uncut, while wide ones are cut and pressed open. In washable materials the edges are overcast, otherwise they may be pinked.

Making Seams

Scene No.	Camera Position	Description of Scene	Narration Script
1.	Titler	"Lapped Seam".	
2.	MS	Girl finishing cutting out the tops to pajamas. Both front and back pieces have yokes. She picks up a finished garment and examines the lapped seam.	Lapped seams are stitched from the right side and a little distance from the seam line.
3.	CU	She picks up the pattern envelope and examines the illustration.	In making lapped seams decide which side should be on top. When there is more fullness in one edge than the other the one without fullness goes on top.
4.	ECU	The illustration on the envelope showing that the lower blouse has gathers where the two pieces join.	The yoke goes on top.
5.	CU	Girl with a seam gauge turning the seam allowance of the lower edge of the back yoke to the wrong side. She pins perpendicular to the edge, with the heads at the folded edge.	Turn the seam allowance of the top piece to the wrong side and place pins perpendicular to the edge with the heads at the folded edge. The pinned edges are now ready to be basted.

Scene No.	Camera Position	Description of Scene	Narration Script
6.	Titler	"The Basting Stitch".	
7.	ECU	The girl with thread- ed needle, looping the end of the thread around the tip of her finger, rolling the threads together, slipping the thread off her finger, and pulling the twisted loop into a knot.	To make a knot, loop the end of the thread around the tip of the first finger of the right hand. Roll the two threads of the loop together between the thumb and the first finger. Slip the twisted loop off the finger and pull the thread into a firm knot. Knots are used only when basting.
8.	CU	Girl with the yoke, the pinned edge held between the thumb and the first finger of each hand, with the turned edge facing her. She has her hands about an inch apart. She places the needle with knotted thread into the material and brings the thimble which is on the second finger of her right hand against the end of the needle. She bastes by running the needle in and out of the material. When the needle is full of stitches she pushes the material onto the thread and continues	Baste close to the fold by holding the material between the thumb and the first finger of each hand. Have your hands about an inch apart and stretch the material between them. Place your needle with the knotted thread in the material and bring the thimble against the end. Run the needle in and out of the fabric by moving the right hand and wrist up and down slightly. Push gently and steadily with the thimble so that the needle moves through the material from right to left.

Scene No.	Camera Position	Description of Scene	Narration Script
		without pulling the needle through.	Keep the basting stitches even. When the needle is full of stitches, push the material onto the thread and continue without removing the needle. When finished remove the pins.
9.	CU	Girl running gathering thread between the notches in the upper edge of the lower back piece.	Run a gathering thread in the upper edge of the lower back piece. This is done like you did your basting stitches except that the gathering stitches are made fine.
10.	MS	Girl using the seam gauge to measure as she marks the seam line on the upper edge of the back piece with pins parallel to the raw edge.	On the right side of the other piece or in this case the lower back, mark the seam line with a row of pins parallel to the edge. Use your gauge.
11.	CU	Girl places and pins the basted yoke edge over the lower back with the folded edge touching the line of pins and the notches matching. She draws up on the gathering thread and makes it secure around a pin. She distributes the gathers evenly and continues pinning the	Lap the seam edges until the folded edge touches the line of pins. Match the notches and pin. Draw up the gathering thread and secure it with a pin. Distribute the gathers evenly and continue pinning the yoke into place. Place the pins perpendicular to the

Scene No.	Camera Position	Description of Scene	Narration Script
		yoke into place with the pins perpendicular to the edge.	edge.
12.	SCU	Girl finishing basting the yoke into place. She removes the pins.	Baste the yoke into place. Remove the pins.
13.	MS	Girl takes the garment to the sewing machine, sits down and prepares to stitch.	The lapped seam is now ready to be stitched.
14.	CU	Girl stitching and using the presser foot as a gauge.	Stitch as near the fold as desired. The presser foot makes a convenient gauge.
15.	ECU	Girl ties the ends of the threads of the machine stitching, clips the excess thread; then clips and removes the basting.	Tie the two threads of the machine stitching at both ends of the seam. Clip and remove the bastings. Press.
16.	MS	The completed lapped seam.	The completed lapped seam should have the raw edges finished, either by overcasting or by blanket stitching.

Scene No.	Camera Position	Description of Scene	Narration Script
1.	Titler	"Easy Fell Seam".	
2.	MS	The girl with the yoke of the pajama tops stitched in place. She is ready to put the front and back together.	You are now ready to join the back and front of your pajama tops at the sides and on the shoulders. A very appropriate seam for pajamas is the easy fell seam. This seam is made on the right side of the garment.
3.	SCU	Girl places the wrong sides of the pieces together with the back piece extending beyond the front pieces about 1/8" at both sides and on both shoulders.	Place the wrong sides of the material together with the back piece under and extending about 1/8" beyond the front piece at sides and shoulders. Have one set of notches just above the other. Pin perpendicular to the edge, back from it about an inch.
4.	CU	Girl holding a pinned edge between the thumb and first finger of each hand. With her left thumb she turns down the extended edge over the other edge and bastes. She removes the pins.	With the thumb of the left hand turn down the extended edge over the other edge and baste. This edge should turn toward you. Remove the pins. This is now ready for the first stitching.

Scene No.	Camera Position	Description of Scene	Narration Script
5.	MS	Girl takes the garment to the sewing machine and places the seam under the presser foot with the raw edges underneath and stitches on a new line $\frac{1}{4}$ " from the folded edge.	To stitch, place the seam under the presser foot with the raw edge down and stitch $\frac{1}{4}$ " from the folded edge. A convenient gauge to use is the wide toe of the presser foot.
6.	CU	Girl finger creases and then presses open the seam on the wrong side, making sure that when the seam turns on the right side that the raw edge is hidden. She bastes the seam flat to the garment.	Finger crease and then press the seam open on the wrong side. Be sure that on the right side the seam turns so that the raw edges are covered. Baste the seam flat, making sure that there are no puckers on the wrong side.
7.	MS	Girl goes to the sewing machine and stitches close to the folded edge. She has the first stitching to the left and the fold to the right.	Place the seam in the machine with the first stitching to the left, and the folded edge to the right. Stitch close to the folded edge; the inside edge of the presser foot makes a convenient gauge.
8.	CU	The finished seam.	Tie the threads; clip and remove the bastings; press.

Setting in a Sleeve

Scene No.	Camera Position	Description of Scene	Narration Script
1.	Titler	"Setting in a Sleeve".	
2.	MS	Girl with pajama tops and sleeves made, ready to be put together.	The sleeves should be finished before setting them in the garment.
3.	CU	Girl at sewing machine preparing to run gathering threads.	Gathering threads should be placed around the top of the sleeve between notches.
4.	ECU	The stitch regulating apparatus of the sewing machine. Fingers loosen the thumb screw, and move the control lever to lengthen the stitches.	Gathering may be done on the sewing machine by using a longer stitch and -
5.	ECU	The upper tension; fingers loosen the tension screw.	by loosening the upper tension somewhat.
6.	CU	Girl stitching around top of sleeve between notches. She makes two rows of stitching.	Stitch around the top of the sleeve between notches. Make two rows, one on the seam line and the other above.

Scene No.	Camera Position	Description of Scene	Narration Script
7.	MS	Girl with pajama tops wrong side out, and the sleeves right side out.	Have the sleeves right side out and the garment wrong side out.
8.	SCU	She inserts the sleeve through the armseye, matches and pins the seams, the notches, and places the tailor's tack at the shoulder line.	Insert the sleeve through the armseye, bringing both right sides together. Match and pin the seams, the notches and the shoulder line.
9.	CU	Girl draws up on the gathering stitches and fastens the ends around a pin.	Draw up the gathering stitches and fasten the threads around a pin.
10.	CU	She distributes the gathers evenly and pins them in place with the pins perpendicular to the edge.	Distribute the gathers evenly and pin them into place with the pins perpendicular to the edge.
11.	SCU	Girl finishing basting in the sleeve.	Baste along the seam line with short basting stitches.
12.	MS	Girl trying on the garment to see how the basted sleeves fit.	Try on the garment to see how the sleeves fit.

Scene No.	Camera Position	Description of Scene	Narration Script
13.	MS	Girl standing before the mirror checking the fit of the sleeves.	The gathers should be distributed evenly over the shoulder. The garment side of the seam should be smooth with no tucks or folds. Both the sleeve and the garment should be smooth from notch to notch under the arm.
14.	SCU	Girl stitching the sleeve. She starts at the underarm seam with the sleeve side of the seam up.	Stitch the sleeve in the armhole, starting at the underarm seam. Have the sleeve side of the seam up in the sewing machine.
15.	ECU	Girl pulling on one of the threads of the machine stitching. With a pin she catches the loop formed and draws the other thread to the same side. She ties the two threads together, then cuts off the excess thread.	Tie the machine stitching, by first pulling the other thread through the seam. To do this gently pull on a thread. At the seam the loop of the other thread will be seen. Use a pin and pull it through. Tie both threads together, and then cut off the excess thread.
16.	MS	Girl snips the basting thread in several places and then removes it.	Clip and remove the bastings. Press the seam. In cottons and other washable materials blanket stitching the seam is one way to finish it.

Scene No.	Camera Position	Description of Scene	Narration Script
17.	Titler	"The Blanket Stitch".	
18.	SCU	Girl sitting with the garment on the table. In her left hand she holds the edge to be finished. She fastens the thread in the seam.	To do the blanket stitch hold the material in the left hand so that the edge to be finished is toward you. Fasten the thread at the seam of the sleeve as deep in the edge as the desired finish.
19.	CU	She swings the thread down and to the right and takes a stitch perpendicular to the edge and brings the needle up through the loop. She repeats as she works from left to right.	Work from left to right. Swing the thread down and to the right and take a stitch perpendicular to the edge and bring the needle up through the loop. Repeat.
20.	CU	She pulls the stitches tight enough to make them firm but is careful that they do not pucker the material.	Pull the stitch tight enough to make it firm, but not tight enough to pucker the material.
21.	ECU	The stitches being made and tightened.	The stitches should be about $\frac{1}{4}$ " apart. At the end fasten the thread by taking several small stitches over each other.

Providing Fullness

Scene No.	Camera Position	Description of Scene	Narration Script
1.	Titler	"Gathering and Shirring".	
2.	MS	Girl making a peasant skirt. She is ready to gather the skirt and fit it to the band.	Gathering stitches are running stitches. They are made like basting stitches but they are made tiny. Shirring is made by placing rows of gathering stitches one under the other; the rows are spaced as desired and the stitches are of uniform length.
3.	CU	Girl at the sewing machine moving control lever to lengthen stitches. She then loosens the tension screw.	Gathering and shirring may be done by machine, by using a long stitch, and loosening the upper tension somewhat. After stitching the lower thread is drawn up.
4.	SCU	Girl dividing her skirt into four equal parts and marking with tailor's chalk. She does the same to the band.	To space gathers or shirring, divide the material to be gathered into four equal spaces and mark with thread or chalk. Divide the other piece for the band into the same number of spaces and mark it likewise.

Scene No.	Camera Position	Description of Scene	Narration Script
5.	CU	Girl completing the second row of stitching at the top of the skirt. One is on the seam line and the other above it. She has stopped at the halfway mark and left ends of thread.	Make two rows of stitching around the top of the skirt, one on the seam line and the other just above. It is easier to adjust the gathers if at the half-way mark you stop and leave ends of thread about three inches long. Start again leaving about the same length of thread.
6.	SCU	Girl placing the right side of the band and the right side of the skirt together, matching markings and pinning perpendicular to the edge.	Pin the skirt piece to the band, right sides together, matching the markings.
7.	CU	Girl draws up on the gathering threads first from one and then the other until the gathered edge fits the band.	Draw up the lower threads from one end to the quarter mark; then draw them from the other end. Do likewise for the other half. Wind the ends of the threads around a pin.
8.	CU	She distributes the gathers evenly in each section, pins them in place with the pins perpendicular to the edge.	Distribute the gathers evenly in each section, pin them in place with the pins perpendicular to the edge. Baste.

Scene No.	Camera Position	Description of Scene	Narration Script
9.	SCU	Girl stitching the basted seam with the gathers up.	When stitching, keep the gathers up so you can watch and control them.
10.	MS	Girl clipping and removing the bastings.	Clip and remove the bastings.
11.	SCU	Girl bringing the basted edge of the band over the seam to the machine stitches. She pins perpendicular to the edge and bastes.	Bring the basted fold of the band over the seam to the machine stitches, pin perpendicular and baste.
12.	ECU	Girl hemming the band by catching the stitches under the machine stitches.	Finish by catching hemming stitches under the machine stitches. Press.

Sewing on Fastenings

Scene No.	Camera Position	Description of Scene	Narration Script
1.	Titler	"Making a Worked Buttonhole".	
2.	CU	Girl looking at worked buttonholes. She has with her finished pajama tops in which she is going to make buttonholes.	Worked buttonholes are made after the garment is completed. They may be strengthened by machine stitching before cutting or by stranding and overcasting after cutting. They may be made with a fan and a bar or two bars.
3.	CU	Girl with ruler measuring for buttonholes. Near at hand lies buttons and a pair of buttonhole scissors, also tailor's chalk.	In making buttonholes, first mark the place for the buttonhole; the size depends upon the size of the button.
4.	CU	She picks up the scissors and a button and sets the scissors for the size of the button and cuts a slit in a scrap of material and tries the button in it for size. She then gets a piece of hemmed material, cuts a buttonhole in it so as to practice before doing them on her garment.	After setting the buttonhole scissors for your size of buttons, start cutting where you have marked. Cut on the straight of the thread. When your scissors are set for a certain size, there is no danger of cutting too far. It is well to practice before doing it on the garment.

Scene No.	Camera Position	Description of Scene	Narration Script
5.	ECU	Girl fastens the thread at the end of the sample buttonhole. She then strands it and overcasts it.	The thread should be fastened at the end opposite from where the button will pull. Strand the hole by having the strands on the right side run lengthwise and those on the wrong side across the ends. Strand the buttonhole twice and then overcast it with short stitches. Overcasting holds the two pieces of the fabric together and it prevents the slit from raveling.
6.	ECU	Girl with the slit along the first finger of her left hand. The thread is fastened at the end nearest the tip of her finger.	To work the buttonhole, hold the slit along the first finger of your left hand. Start to work at the end that will not get the strain; the fan end is placed next to the button. Have the bar end of the buttonhole near the end of the finger.
7.	ECU	Girl placing needle in the slit and holding it there until she brings both threads from the eye of the needle around and under the point of the needle from right to left.	Put the needle into the slit bringing it out through the material towards yourself just below the overcasting stitches and in line with the end of the slit. Hold it there until you bring the

Scene No.	Camera Position	Description of Scene	Narration Script
			two threads from the eye of the needle around and under the point of the needle from right to left.
8.	ECU	She draws the needle through and straight up from the edge of the slit and places the "purl" on the raw edge of the slit. She keeps repeating the buttonhole stitch.	Draw the needle out of the material and straight up from the edge of the slit in order to place the purl or knot on the raw edge. Do not pull the thread too tight or the material will pucker. Make the stitches close enough so that the purls touch each other but do not overlap.
9.	ECU	Shows the end of the buttonhole as the fan is being made to get around the turn.	At the first end, let the stitches spread out like a fan. The fan should be started just before the end so that the purls will not overlap on the turn. It takes about five stitches to make the fan.
10.	CU	The girl reverses the ends of the slit on her finger and continues working the buttonhole stitch.	Reverse the position of the two ends of the button hole on your finger and continue doing the buttonhole stitch until you reach the other end.

Scene No.	Camera Position	Description of Scene	Narration Script
-----------	-----------------	----------------------	------------------

11.	CU	The second end of the buttonhole is reached and two stitches are taken across the end and the bar is made by covering these with purl stitches. The thread is fastened on the wrong side.	At the second end of the buttonhole take two stitches across the end. The ends of these stitches should be in line with the buttonhole stitches on either side. Make the bar by covering these stitches with purl stitches which should be worked through the material. Fasten the thread on the wrong side.
-----	----	---	--

12.	ECU	The completed buttonhole.	You are now ready to put your buttonholes in your garment. The thread used should match the color of your garment.
-----	-----	---------------------------	--

Scene No.	Camera Position	Description of Scene	Narration Script
1.	Titler	"Sewing on Buttons".	
2.	MS	Girl with pajama tops; the buttonholes are made. She is ready to sew on buttons.	Before sewing buttons on, the buttonholes should be made.
3.	SCU	Girl placing the right front over the left front and pinning the garment closed. She locates the places for the buttons by inserting pins through the buttonholes at the extreme fan end. She then unpins the fronts.	Locate and mark the places for the buttons with pins by lapping the right front over the left front and pinning into position. Insert pins through the buttonholes at the fan end. After marking unpin the fronts.
4.	CU	Girl fastening the thread at the located spot, placing a pin over the button and stitching through the button until firm.	Fasten the thread into the material at this point and sew through the button. Place a pin over the button and under the stitch. Do a number of stitches or until sufficiently firm.
5.	ECU	With the needle at the wrong side, she removes the pin from over the button, brings the needle through between the button and the garment and winds the thread under the button several times.	When the needle is at the wrong side remove the pin from over the button, and bring the needle up between the button and the garment. Wind the thread under the button several times to form a

Scene No.	Camera Position	Description of Scene	Narration Script
			shank. This makes it easier to button a garment.
6.	CU	She pushes the needle through to the wrong side and fastens the thread with several tiny stitches.	Carry the needle through to the wrong side and fasten the thread securely.
1.	Titler	"Sewing on Hooks and Eyes and Snaps".	
2.	MS	Girl with skirt. She is ready to sew hooks and eyes and a snap at the waistband.	When using hooks and eyes, use straight eyes when the edges of the garment overlap and round eyes where the edges meet.
3.	CU	Girl marking with pins where the hooks and eyes will go; she has the band of the skirt overlapped.	Mark the position for the hooks and eyes.
4.	ECU	Girl sewing the hook in place with the buttonhole stitch. She slips the needle between the band pieces and brings it out at the end of the hook. She takes several stitches around the end of the hook and fastens the thread.	Sew the hook through both eyes and at the end. Either the overhand or the buttonhole stitch may be used, the latter being the prettier finish. Sew the eye exactly opposite the hook. The color of the thread should match the color of the garment.

Scene No.	Camera Position	Description of Scene	Narration Script
<hr/>			
5.	MS	Girl ready to sew a snap on the under part of the lapped band to hold it in place. She marks the place for the snap.	Mark the place for the snap. When several snaps are used they should be spaced evenly.
<hr/>			
6.	ECU	Girl sewing the snap into place. Again she is using the buttonhole stitch.	Snaps are sewed with either the overhand or the buttonhole stitch through the holes. The two halves should be sewed opposite one another.

Hanging and Finishing a Hem

Scene No.	Camera Position	Description of Scene	Narration Script
1.	Titler	"Hanging and Finishing a Hem."	
2.	LS	Girl standing on a table ready to have her hem hung.	The normal hemline should be the same distance from the floor at all points. This distance depends upon the season's style. Everything but the hem about a garment should be finished before it is hung.
3.	LS	Girl in a natural posture, arms hanging at her side and looking straight ahead. The helper steps up to the table with the measuring device and a pin-cushion of pins.	The garment should set freely on the wearer who should stand on a strong table in a natural position with her arms hanging at her sides and looking straight ahead.
4.	MS	The helper confers with the girl as to the distance that the hem is wanted from the floor.	Determine the number of inches that the garment should be from the floor. Mark a yardstick with a rubber band or use a patent device which may be set for the distance.

Scene No.	Camera Position	Description of Scene	Narration Script
5.	CU	The measuring device is held against the dress and pins are placed in the garment parallel to the floor. The girl stands still while the helper moves as the pinning progresses.	Hold the measuring device with the left hand against the dress. Place pins in the garment at the distance from the floor that was decided upon. The pins should be placed about two inches apart.
6.	MS	Girl turns as the helper checks center front, center back and the seams.	Have a pin at each of these places; center front, center back and all seams.
7.	LS	The girl turns around slowly for a recheck as the helper eyes the line of pins.	The pins should form a straight line parallel to the floor. The wearer should turn around slowly and have the line of pins checked.
8.	LS	Girl leaves to remove dress.	When the pins are parallel to the floor remove the garment.
9.	MS	Girl with the garment wrong side out turning the hem to the wrong side along the line of pins. As she turns at a pin she removes it and pins through both thicknesses	Turn the hem to the wrong side along the line of pins, remove the pins and repin the folded edge by taking several stitches with the pins. The pins should be perpendi-

Scene No.	Camera Position	Description of Scene	Narration Script
		close to the fold and perpendicular to it.	cular to the edge.
10.	CU	Girl checking line formed at the bottom of the hem. She finds a warped place in the hemline and removes the pin and then replaces it.	The line formed at the bottom should be smooth. If a pin seems to make a warped hemline, remove it, notice the material adjust itself, and then replace the pin.
11.	Titler	"The Basting Stitch".	
12.	ECU	Girl with threaded needle, winding the end of the thread around the tip of her finger, rolling the threads together, slipping the thread off her finger, and pulling the twisted loop into a knot.	To make a knot, wind the end of the thread around the tip of the first finger of the right hand in a loop. Roll the two threads of the loop together between the thumb and the first finger. Slip the twisted loop off the finger and pull the thread into a firm knot. Knots are used only when basting.
13.	CU	Girl with pinned hem held between thumb and first finger of each hand and with her hands about an inch apart. She places needle with knotted thread in the material and brings the thimble	Baste close to the fold by holding the material between the thumb and first finger of each hand. Have your hands about an inch apart and stretch the material between them. Place your needle with a

Scene No.	Camera Position	Description of Scene	Narration Script
		against the end of the needle and bastes by running the needle in and out of the cloth.	knotted thread in the material and bring the thimble against the end. Run the needle in and out of the cloth by moving the right hand and wrist up and down slightly. Push gently and steadily with the thimble so that the needle moves through the material from right to left. Try to keep the basting stitches an even length. When the needle is full of stitches, push the material onto the thread and continue without removing the needle. Remove the pins.
14.	MS	Girl with garment wrong side out pinning the top of the hem to the garment.	With the garment wrong side out pin up the top of the hem in a number of places to prevent its falling down when the garment is tried on for hemline approval.
15.	LS	Girl with the garment on turning for hemline approval.	Try on the garment and have the hemline inspected to make sure that it is even.

Scene No.	Camera Position	Description of Scene	Narration Script
16.	LS	The helper eyeing the hemline, and then stepping up to make a change.	If the hemline is uneven, make the necessary changes and then remove the pins. Press.
17.	MS	Girl with garment wrong side out measuring for the narrowest part of the hem. She makes a cardboard gauge this length and includes on it the amount to be turned under.	Find the narrowest part of the hem and make a cardboard gauge this size. Add to your gauge a half inch notch to allow for the amount to be turned under.
18.	CU	Girl using gauge and marking the hem with tailor's chalk.	Use the gauge and establish both lines, that is the top of the hem and the amount to be turned under. Mark with tailor's chalk about two inches apart.
19.	CU	Girl with shears making the hem width even by cutting on the top line formed when marked with the gauge and tailor's chalk.	To make the hem even cut along the top line formed when marked.
20.	CU	Girl turning the edge of the hem to the wrong side on the second line of marking. She bastes as she turns.	Turn the edge to the wrong side on the second line of markings and baste.

Scene No.	Camera Position	Description of Scene	Narration Script
21.	CU	Girl placing basted edge under presser foot and stitching.	Stitch the turned edge on the sewing machine. Clip and remove the bastings. Press.
22.	MS	Girl pinning stitched edges to the garment, matching centers and seams.	Pin the stitched edge of the hem to the garment, matching center front, center back and seams. To take up fullness lay small pleats in the edge and pin them to the garment.
23.	CU	Girl basting hem in place.	After approval of your pinned hem, baste it in place.
24.	MS	Girl ready to learn how hems are finished. She has some sample hems prepared.	There are several ways of finishing hems.
25.	Titler	"The Hemming Stitch".	This stitch is used to sew folded edges to material.
26.	CU	Girl holding a basted hem over the first finger of the left hand with the thumb and second finger holding it in place.	Place the basted hem over the first finger of your left hand and hold it in place with your thumb and second finger. We will call this a "finger clamp".

Scene No.	Camera Position	Description of Scene	Narration Script
27.	ECU	Girl fastening thread in the folded edge.	Fasten the thread in the folded edge by taking a small stitch; when the end of the thread is at the fold take another stitch but hold the needle there until you bring both threads from the eye of the needle under the point of the needle from right to left. Pull the needle through and tighten the thread. The thread is now securely fastened.
28.	CU	The right hand placing the needle into the material and taking up a yarn or two of the material from directly under the folded edge. It brings the needle through the folded edge.	With the needle pointed toward your left shoulder take up a yarn or two of the material from directly under the folded edge. Bring the needle through the folded edge. As you hem work toward yourself.
29.	ECU	Hemming stitches being done.	The tinier the stitches the better the hemming.
30.	ECU	Reverse side of the hem.	Carefully done hemming should be almost invisible from the right side.
31.	Titler	"The Slip Stitch".	

Scene No.	Camera Position	Description of Scene	Narration Script
32.	CU	Girl examining a slip stitched hem. She has a sample basted hem on which to practice. With needle and thread in hand she fastens the thread in the edge of the basted hem.	It is made with the fold of one piece of fabric lying on another piece. It is worked from right to left. Fasten the thread in the basted hem.
33.	ECU	Girl putting needle into material exactly opposite where the thread leaves the fold and bringing it out beside the fold having taken a tiny stitch. She takes a stitch in the edge of the fold, and then one in the garment.	Exactly opposite where the thread leaves the fold put the needle into the other piece of material and take a stitch parallel to the fold and bring the needle out beside the fold. In hems the stitch in the garment piece should be very tiny so that it does not show on the right side. Exactly opposite where the needle emerges put the needle into the fold, let it run along in the fold. Repeat until finished. Pull the thread snugly, but not tight and fasten.
34.	Titler	"The Catch Stitch".	
35.	CU	Girl with a wool sample in which the hem is basted. On the upper edge of the hem seam binding has been stitched.	The catch stitch is often used in place of the hemming stitch, especially when putting hems in woolen garments.

Scene No.	Camera Position	Description of Scene	Narration Script
36.	ECU	Girl fastening thread in edge of hem, and taking stitches in a zig-zag fashion as she works from left to right. She takes a stitch in the garment then one in the hem.	To do the catch stitch, fasten the thread in the hem. Work from left to right by catching a yarn or two of the garment and then a stitch in the hem in a zig-zag fashion with the point of the needle always pointed from right to left.
37.	ECU	Finishing the catch stitch, fastening the thread, bringing the needle between the two pieces and cutting off the thread.	To finish make the last stitch in the hem and fasten the thread securely. Bring the needle out between the two pieces and cut off the thread.
38.	CU	Girl clipping and removing the bastings.	Clip and remove the bastings. Press.
39.	MS	Girl sitting while hemming her garment.	Cotton garments are generally hemmed with the hemming stitch.

Part II

Script for Hanging and Finishing a Hem

The film selected to produce as a part of this study was Hanging and Finishing a Hem.

The production script and the photostatic copy of one page of the final production scenario and teacher evaluation are included here to indicate the kind of detailed planning that was employed in preparing to make the film Hanging and Finishing a Hem.

The sequence presented in the photostatic copy of the production scenario is illustrated by a photostatic copy of three corresponding frames. Other frames are included to illustrate additional close-up shots presented in the film.

It will be noted that, in order to prepare the production script, the preliminary script was changed in two respects. When the preliminary plans were made the writer expected to produce a sound motion picture; therefore, a narration script was included. But because the cost of adding a sound track was prohibitive, the production script substitutes a commentary to be used with the silent film. The second change is that the number of sequences included in the final production is more than fifty per cent greater than the number indicated in the preliminary script.

Hanging and Finishing a Hem

Scene No.	Camera Position	Description of Scene	Commentary
1.	LS	<p>Girl (with helper) having a hem hung. The girl is standing on a table.</p> <p>(The above scene is the background for the title "Hanging and Finishing a Hem".)</p>	
2.	LS	<p>A table with a step-stool beside it. Two girls walk into the scene. Joy has a skirt which is ready to have the hem hung; she carries a braided mat. Mary carries a measuring device and a pincushion of pins. Joy places the mat on the table and uses the step-stool to climb up. Mary places the pincushion and the measuring device on the table.</p>	<p>It is easier to have a hem hung by standing on a table. The table top should be protected.</p>
3.	MS	<p>Mary checks the position of the skirt on the body.</p> <p>Mary confers with Joy as to the distance that she wants the hem from the floor, and sets the measuring device.</p>	<p>The center-front, the center-back, and the side seams of the skirt should be perpendicular to the floor.</p> <p>Determine the number of inches that the garment should be from the floor. Mark a yardstick with a rubber band or use a patent device which may be set for the distance.</p>

Scene Camera No. Position	Description of Scene	Commentary
4. CU	The measuring device being set for the desired distance from the floor.	
5. CU	The measuring device is held against the garment and pins are placed in it parallel to the floor. Joy stands still, while Mary moves as the pinning progresses.	Hold the measuring device against the dress. Place the pins parallel to the floor and about two inches apart. Stand still while the skirt is being hung; the helper should do the moving.
6. MS	Joy turns as Mary checks to see that there are pins at center front, center back, and at the seams.	Have a pin at each of these places: center front, center back, and all seams.
7. LS	Joy turns around slowly for a recheck as Mary backs away and eyes the line of pins.	Turn around slowly and have the line of pins checked. The pins should form a straight line parallel to the floor.
8. LS	Mary adjusts the step-stool at the table. Joy descends, picks up the mat and leaves.	When the line formed by the pins has been checked, remove the garment.

Scene No.	Camera Position	Description of Scene	Commentary
9.	MS	Joy sitting at the table with her garment wrong side out. She turns the hem to the wrong side along the line of pins. As she turns at a pin, she removes it and pins through both thicknesses close to the fold and perpendicular to it.	Turn the hem to the wrong side along the line of pins, remove the pins and re-pin the folded edge. The pins should be perpendicular to the edge.
10.	CU	Same scene. As she turns, she removes a pin, and pins through both thicknesses. The pin is perpendicular to the edge.	
11.	MS	Joy checking the line formed at the bottom of the hem. She finds a warped place in the hemline and removes the pin and replaces it.	The line formed at the bottom should be smooth. If a pin seems to make a warped hemline, remove it.
12.	CU	Joy removing the pin from the warped place in the hemline. The material adjusts itself and she repins the straightened hemline.	Notice the material adjust itself, then repin the hemline.
13.	SCU	Joy with a threaded needle. She is getting ready to baste.	A short thread is less likely to tangle than a long thread.

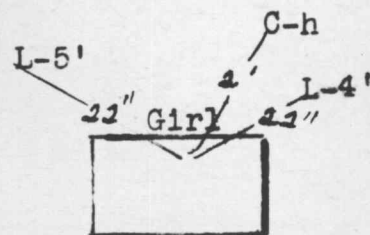
Scene No.	Camera Position	Description of Scene	Commentary
14.	CU	Joy wraps the end of the thread around the tip of her forefinger. She rolls the thread between the thumb and forefinger. She slips the loop off the finger. She holds the loop between the thumb and forefinger and draws it up to make a knot.	To make a knot, wrap the end of the thread around the tip of the forefinger. Roll the thread between the thumb and forefinger. Slip the loop of the finger. Hold the loop between the thumb and the forefinger and draw the thread into a firm knot.
15.	ECU	The knot.	Knots are used only when basting.
16.	SCU	Joy with the pinned hem held between the thumb and first finger of each hand. Her hands are about an inch apart. She places the needle with the knotted thread in the material and brings the thimble against the end of the needle. She bastes by running the needle in and out of the material.	To baste, have your hands about an inch apart and stretch the material between them. Place your needle with a knotted thread in the material and bring the thimble against the end of the needle. Run the needle in and out of the cloth by moving the right hand and wrist up and down. Push steadily with the thimble so that the needle moves through the cloth.
17.	CU	The thimbled finger pushing the needle through the material; the stitches are retained on the needle.	Try to keep the stitches an even length. It saves time to get the needle full of stitches.

Scene No.	Camera Position	Description of Scene	Commentary
18.	SCU	The stitches on the needle are pushed onto the thread. She continues basting without removing the needle.	When the needle is full of stitches, push the material onto the thread and continue basting without removing the needle.
19.	MS	Joy removing the pins from the basted hem.	Remove the pins.
20.	SCU	Joy with the garment wrong side out pinning the top of the hem to the garment.	With the garment wrong side out pin up the top of the hem in a number of places to prevent its falling down when the garment is tried on for hemline approval.
21.	LS	Joy with the skirt on, right side out. She turns for hemline approval as Mary watches. Mary sees an uneven spot and steps up.	Try on the garment and have the hemline checked to make sure that it is even.
22.	CU	Mary clips the basting and makes the change.	If the hemline is uneven, make the necessary changes.
23.	LS	Joy again turns for hemline approval. Mary nods her approval. Joy walks off to remove the garment.	

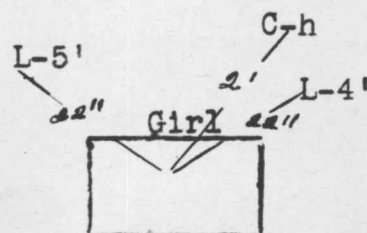
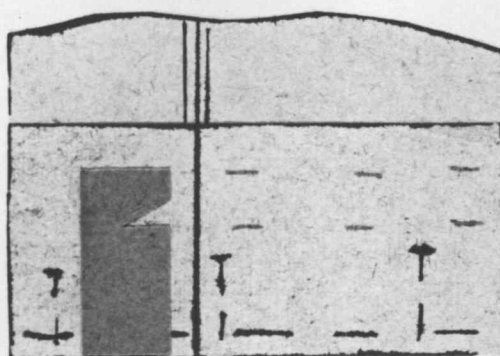
Scene No.	Camera Position	Description of Scene	Commentary
24.	MS	Joy sitting at the table finishing with the removing of pins from the hem. She rises and picks up the garment.	Remove the pins.
25.	MS	Joy slips the skirt over the ironing board and presses the hem.	Pressing is necessary for good sewing.
26.	SCU	Joy with the skirt wrong side out on the table. She measures for the narrowest part of the hem.	Find the narrowest part of the hem.
27.	CU	Joy cuts a cardboard gauge for the desired width of the hem. She includes on this gauge the amount to be turned under.	Cut a cardboard gauge; include on this gauge the amount to be turned under.
28.	CU	Joy using the gauge. She marks the width of the hem and the amount to be turned under with the tailor's chalk.	Use the gauge and mark both lines with tailor's chalk. The marks should be about two inches apart.
29.	SCU	Joy with shears making the hem width even by cutting on the top line formed when marked with the gauge and tailor's chalk.	To make a hem even, cut along the top line formed when marked.

Scene No.	C.P. Description of Scene	Lights and Camera
-----------	---------------------------	-------------------

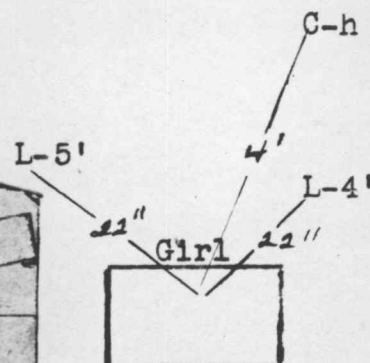
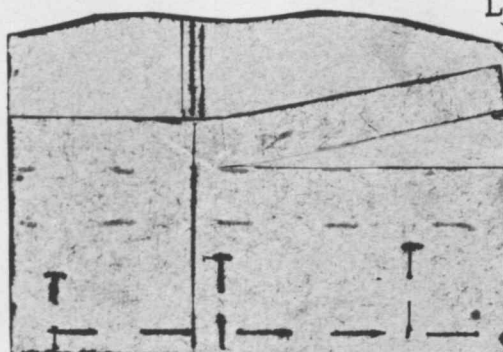
27. CU Joy cuts a cardboard gauge for the desired width of the hem. She includes on this gauge the amount to be turned under.



28. CU Joy using the gauge. She marks the hem and the amount to be turned with tailor's chalk.



29. SCU Joy with shears making the hem width even by cutting on the top line formed when marked with the gauge and tailor's chalk.

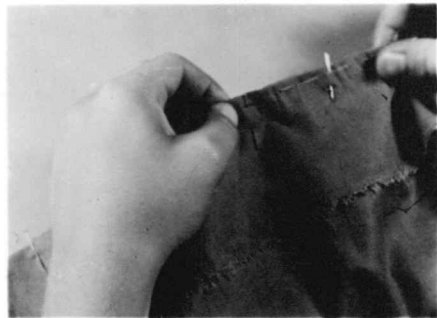


Close-up Scenes Presented in the Film
Hanging and Finishing a Hem

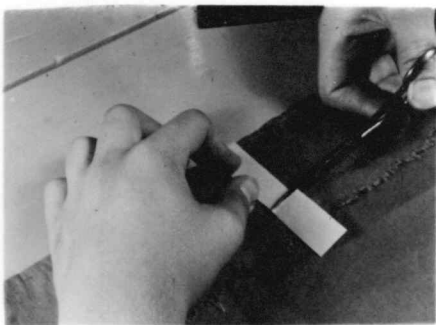
102



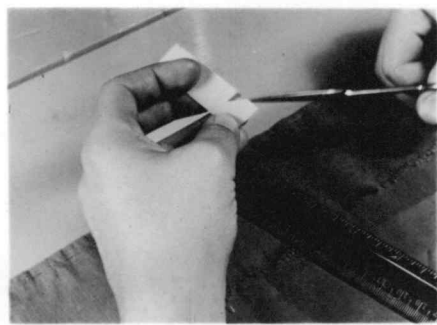
Scene No. 16



Scene No. 18



Scene No. 27



Scene No. 27



Scene No. 28



Scene No. 29

Scene No.	Camera Position	Description of Scene	Commentary
30.	CU	Joy turning the edge of the hem to the wrong side on the second line of markings. She bastes as she turns.	Turn the edge to the wrong side on the second line of markings and baste.
31.	MS	Joy at the sewing machine. She places the basted edge under the presser foot and stitches.	Stitch the turned edge on the sewing machine.
32.	CU	Stitching.	
33.	CU	Joy clipping and removing the bastings of the turned edge.	Clip and remove the bastings of the turned edge.
34.	SCU	Joy pressing the stitched hem.	Press the hem.
35.	MS	Joy working at the table. She pins the stitched edge to the garment, matching center front, center back and seams.	Pin the stitched edge of the hem to the garment, matching center front, center back and seams.
36.	CU	She makes small pleats in the edge to take up the fullness. She pins them to the garment.	To take up the fullness, lay small pleats in the edge and pin them to the garment.

Scene No.	Camera Position	Description of Scene	Commentary
37.	SCU	The center front of the skirt showing that the pleats turn from either side of the center toward the back.	The pleats should turn from either side of the center front toward the back.
38.	LS	Joy raises her hand for the teacher. The teacher comes; she examines the pinned hem and approves.	Have your pinned hem approved before basting.
39.	SCU	Joy sitting at the table basting the hem in place.	Baste the hem in place.
40.	MS	The skirt with the hem basted lies on the table. Joy places some basted sample hems on the table and walks away.	There are several ways of finishing a hem.
41.	LS	The bulletin board; Joy walks into the scene and examines samples of mounted hem finishes.	Select a hem finish that is suitable for the material you are working on.
42.	CU	Hemmed sample labeled "The Hemming Stitch".	This stitch is used to sew folded edges to material.
43.	CU	Sample hem labeled "The Slip Stitch".	The slip stitch is also used for hems.

Scene No.	Camera Position	Description of Scene	Commentary
44.	CU	The third sample hem labeled "The Catch Stitch".	The catch stitch is used on woolen and other heavy materials.
45.	LS	Joy turns from the bulletin board and walks away.	
46.	MS	Joy returns to the table, sits down, and picks up a sample hem.	
47.	SCU	Joy holding the basted sample hem over the first finger of the left hand. She uses her thumb and second finger to hold it in place.	To do the hemming stitch place the basted hem over the first finger of the left hand. Hold it in place with your thumb and second finger. This is a "finger clamp".
48.	ECU	Joy fastening thread in the folded edge. She takes a small stitch in the fold. When the end of the thread is at the fold, she takes another stitch, but she holds the needle there and brings both threads from the eye of the needle under the point of the needle from right to left. She pulls the needle through and tightens the thread.	To fasten the thread take a small stitch in the folded edge. When the end of the thread is at the fold take another stitch but hold the needle there until you bring both threads from the eye of the needle under the point of needle from right to left. Pull the needle through and tighten the thread.

Scene No.	Camera Position	Description of Scene	Commentary
49.	CU	The right hand placing the needle in the material and taking up a yarn or two of the material from directly under the folded edge. The needle is brought through. Another stitch is taken.	With the needle pointed toward your left shoulder take up a yarn or two of the material from directly under the folded edge. As you hem work toward yourself.
50.	ECU	Hemming stitches being done.	
51.	ECU	The reverse side of the hem.	Carefully done hemming should be almost invisible from the right side.
52.	SCU	Joy presses the hemmed sample.	Form the habit of pressing.
53.	CU	Joy with another sample hem. She has the thread fastened in the fold. She holds the material parallel to herself and works from right to left. She takes a tiny stitch in the material exactly opposite where the thread leaves the fold. She brings it out beside the fold. She takes a longer stitch inside the folded edge and then a tiny one in the garment.	The slip stitch is worked from right to left. Fasten the thread in the edge of the fold. Exactly opposite where the thread leaves the fold, put the needle into the other piece of material. Take a tiny stitch parallel to the fold. Bring the needle out beside the fold. Take a longer stitch inside the folded edge. Again take a tiny stitch from the garment side.

Scene No.	Camera Position	Description of Scene	Commentary
54.	ECU	Detail of the slip stitch.	
55.	SCU	Joy presses the slip-stitched hem.	Remember to press as you work.
56.	ECU	The reverse side of the sample.	The slip stitch should also be almost invisible from the right side.
57.	SCU	Joy picks up the third prepared sample hem and prepares to do the catch stitch.	To do the catch stitch fasten the thread in the hem.
58.	CU	Joy has the hem held parallel to herself with the thread fastened at the left. She works from left to right in a zig-zag fashion. She takes a stitch in the garment and then one in the hem. The needle is always pointed to the left.	Work from left to right by catching a yarn or two of the garment and then a stitch in the hem in a zig-zag fashion with the point of the needle always pointed from right to left.
59.	ECU	Joy finishing the catch stitch. The last stitch is taken in the hem. She fastens the thread by taking two tiny stitches over each other. She brings the needle out between the two pieces and cuts the thread.	Make the last stitch in the hem. Fasten the thread with two tiny stitches over each other. Bring the needle out between the two pieces and cut off the thread.

Scene No.	Camera Position	Description of Scene	Commentary
60.	CU	Joy clipping and removing the bastings.	Clip and remove the bastings.
61.	SCU	Joy pressing the finished sample.	Pressing is essential for good workmanship.
62.	SCU	Joy sitting at the table examining the three prepared samples. She compares the samples with the basted hem of her skirt in order to determine which to use.	Select a hem finish appropriate for the garment.
63.	MS	Joy sitting while doing the hemming stitch on the hem of her skirt.	The color of the thread used for a hem finish should match the color of the garment.
64.	LS	Mary standing near the table waiting for Joy. Joy walks in wearing the finished skirt. Mary picks up a finished bolero and helps Joy put it on. Joy steps away and turns as Mary watches.	

(The End)

Preview and Evaluation of the Work Print

The work print of the film Hanging and Finishing a Hem was edited according to the script of Part II of this chapter. The work print was shown to twenty home economics teachers attending the 1949 summer session of Oregon State College. This was done in order to invite suggestions for improving the film and to facilitate future production of the series of films planned in Learning to Sew. As a result of this showing, it was suggested that the different types of hem finishes should be presented before the edge of the hem was turned. Acting on this suggestion, the writer changed the position of some of the sequences in the work print. Scenes 40-62 inclusive were inserted following scene 29. Scenes 30-39 inclusive followed scene 62. The last two scenes, 63 and 64, followed scene 39.

A criticism offered concerned the use of pleats to take in the fullness at the top edge of the hem. It was suggested that gathers be used to ease in the fullness. When it was explained that the material used in the skirt was cotton suiting, the group agreed that this material would not lend itself to the use of gathers.

Some suggestions for additions to the commentary were offered:

1. Emphasis should be placed upon threading the needle with the end of the thread that comes from the spool. This precaution and the use of a short thread helps to prevent the thread from tangling when sewing.

2. The temperature of the iron should be checked before pressing. The temperature should vary for the different kinds of fibers used in the manufacture of fabric. The film did not show checking the temperature of the iron; however the temperature was checked previous to filming.

3. To avoid stretching its edge, the hem should be pressed from the bottom into the hem, rather than parallel with the hem.

4. Some of the group which previewed the film questioned the fact that the film did not emphasize pressing the garment when it was finished. The writer had felt that pressing had been stressed throughout the film. The final pressing could be mentioned in the commentary.

5. It was generally agreed that the commentary should call attention to the excellent work habits demonstrated in the film as: posture, use of equipment, and the effective use of both hands to conserve motions.

After the group of twenty teachers offered these criticisms, the film was shown a second time. A copy of the Check Sheet for Evaluating an Educational Film, pp. 21 and 22, was given to each teacher. The instructors were invited to evaluate the film with this device. The results of this evaluation appear in tabulated form on the following two pages.

The writer believes that few educational films would be scored high on all points of the rating sheet. Some films may rate high on several of the characteristics and low on others.

Check Sheet for Evaluating an Educational Film

Title Hanging and Finishing a Hem

Characteristics	Yes	No
1. Content on level with experience and background of pupils		
a. Opens on familiar situation	19	
b. Calls for certain knowledge to meet the situation	18	1
c. Motivates students to try to accomplish the activities portrayed	19	
2. Subject matter meets		
a. Interests	19	
b. Abilities	18	
c. Needs	20	
3. Provides for extension of experience		
a. Shows what something looks like	17	
b. Shows how it works or it is done	18	
c. Presents skill in detail	19	
d. Gives the right names for the processes in commentary	3	
4. Contains factors for remembering		
a. Light humor		13
b. Unusual association	3	12
c. Repetition	12	2
d. Dramatic incident		10
5. Interest catching techniques		
a. Story treatment	2	10
b. Characterization	2	6
c. Others	4	9

Characteristics	Yes	No
6. Paced for absorption		
a. Long enough on the screen	19	
b. Complicated scenes repeated	12	4
c. Repetition with variety of scenes and situations	9	6
7. Contains the three-fold approach		
a. Telling		1
b. Showing	17	
c. Doing	20	
8. Simple Commentary		
a. Interest provoking and question raising	7	3
b. In language understood by the specific age group	8	1
c. Directs students toward mastery of the subject	13	1
9. Summary at End		
a. Final clinching	6	7
b. Review of main points		12

It will be noted that the film Hanging and Finishing a Hem was rated high in (1) Content on level with experience and background of pupils, (2) Subject matter meets interests, abilities, needs; and (3) Provides for extension of experience. A low rating was given on (4) Contains factors for remembering, (5) Interest catching techniques, and (9) Summary at end. The writer felt that this type of demonstration film does not lend itself particularly well to such interest catching techniques as humorous or story treatment. A better than average rating was given on (6) Paced for absorption, (7) Contains the three-fold approach, and (8) Simple commentary.

It was encouraging that the preview group was almost unanimous in its approval of points 1, 2, and 3, which the writer believes are the most important characteristics of any educational film.

The fact that the summary at the end received a low rating caused the writer some concern. She now realizes that a series of short flash-backs reviewing the main points of hanging and finishing a hem should have been included before the final closing scene. This would have strengthened the end of the film.

Summary

This section of the study was included in order to show the detailed procedure that is indispensable in producing an educational film. The preliminary script for the entire film Learning to Sew, the amended script for the film Hanging and Finishing a Hem, the photo-static copy of one page of the production scenario and the teacher evaluation are presented to give a more complete picture of the procedure followed in this study.

CHAPTER IV

SUMMARY

Review of Procedure

The purpose of this study has been to plan a series of short motion pictures to be used as teaching aids in the clothing area of junior high school homemaking classes.

The writer first made a review of the literature in the field of audio-visual aids, placing special emphasis on the use of the motion picture in education.

Characteristics of educational films, as given by the different authorities in that field, were organized into a check sheet for evaluation purposes.

A study was made of the minimum equipment necessary for the production of motion pictures, techniques for filming and editing the films, and the method of producing a sound motion picture.

The next step was the statement of a philosophy of the place of clothing construction as a phase of a total homemaking program for junior high school classes. The writer proceeded by making a detailed outline of the subject matter taught in the clothing units of the home-making classes in her school.

A careful analysis was made of all available motion pictures and filmstrips which were related specifically to

the subject of clothing construction techniques. Wall charts and other visual aids were included in the study. This information was organized in table form, and the techniques listed were checked against the outline of subject matter taught in the clothing units of the home-making classes at La Cumbre Junior High School. A list of the techniques not included in the visual aids studied was made. This list of techniques was the basis for planning the series of short motion pictures entitled Learning to Sew. Each film planned in this series has a subtitle. They are:

- Making a Narrow Hem
- Applying a Trimming
- Preparing and Applying Bias
- Marking and Stitching a Dart
- Seams - Lapped and Easy Fell
- Setting in a Sleeve
- Providing Fullness
- Fastenings
- Hanging and Finishing a Hem

Scripts were developed for producing each of the films planned. The last named film, Hanging and Finishing a Hem, was selected to be produced as part of this study.

In order to acquire production experience and to improve the techniques of making an educational film, the writer did a "trial film" on The Worked Buttonhole. A motion picture producer viewed and criticized the finished film. He offered a number of suggestions which the writer

has tried to incorporate in the production of the film for this study.

A detailed production scenario was prepared which facilitated the filming of the motion picture Hanging and Finishing a Hem. Suggestions given by the motion picture producer, the clothing consultant, and the visual aids director were incorporated in this scenario.

The work print of the film Hanging and Finishing a Hem was edited according to the shooting script. It was then shown to twenty home economics teachers, who offered criticisms. They then evaluated it by using the checking device worked out in this study.

Acting on the suggestions given by the teachers, the writer reorganized some of the sequences of the work print. Their low rating of the summary or end of the film made the writer realize that she should have included a review of the main points of the film by a series of flash-backs, which should have come just before the closing scene. This would have strengthened the closing of the film.

Conclusions

The growing need for motion pictures that teach various phases of homemaking is indicated by the number of films that commercial houses are producing. Three years ago the writer made an informal study of motion pictures for teaching several phases of homemaking. At that time she was unable to find films on sewing techniques. In the present study, the writer found that a number of motion pictures have been produced on the subject during the last three years (Chapter II, Part II). Most of these films for clothing construction techniques have been produced very recently.

The writer feels that the production of this educational motion picture has been a satisfying experience -- an experience that leaves her with the urge to continue with the production of the other films planned in this study.

There are some limitations associated with motion picture production that should be revealed.

1. Reading that the writer did early in this study left the impression that the cost of producing a motion picture was nominal. Her experience with this film has changed this impression. The cost of equipment was high,

film was expensive, and the cost of adding a sound track was prohibitive.

2. A great deal of time is needed to produce a motion picture. The writer had hoped that some experimental filming might be done in conjunction with her teaching duties. Actually the attempt proved to be impractical. All filming of the trial film and Hanging and Finishing a Hem had to be done outside of school time. The photographing of the motion picture for this study required approximately twenty-four hours of time after the production script and scenario has been prepared. Much time is required when it is necessary to rearrange sequences in editing the work print and preparing the original film for editing. A total of approximately thirty hours was spent in editing this film.

3. Considerable space is required when filming indoor long-shots. The average-sized rooms in homes are not large enough for this type of photography; therefore, it is necessary to plan to make use of a classroom set-up.

The merits of educational films produced by teachers overshadow the limitations listed above. If teachers produce motion pictures themselves, they will have the specific films that are needed in order to improve their teaching. Before a teacher would undertake the production

of an educational film, he would probably be interested in motion picture photography as a hobby. As a hobby, motion picture photography probably takes no more money than many less creative types of recreation. Except for a sound track, the initial investment in equipment is the greatest cost of production. With careful planning of sequences and meticulous shooting of the scenes, the cost of film may be reduced.

Consultations with motion picture instructors and with both amateur and professional photographers gave the writer valuable help and information. She was impressed by the bond that seems to exist between the members of the cinema group and their custom of giving a willing and helpful hand wherever possible.

The writer offers the following suggestions to educators who may be interested in producing motion pictures for use in the classroom:

1. The 8mm motion picture equipment is less costly than 16mm equipment. Satisfactory silent pictures may be produced with this size equipment. These pictures may be projected for classroom use, but they are too small for auditorium use. Hearsay indicates that some manufacturers are contemplating making 8mm equipment with sound.

2. Motion pictures taken with the 16mm equipment may be projected for use in both the classroom and the

auditorium. These may be either silent or with sound. Silent pictures are taken at 16 frames per second; a commentary is needed to explain the picture; sometimes sound is furnished by recordings that are synchronized with the silent film. Sound pictures are taken at 24 frames per second; the service of a recording laboratory must be procured to add the sound track.

3. Those teachers who have no understanding of motion picture photography and equipment may also plan motion pictures for their classroom use. A commercial producer will shoot the picture according to the plan. He uses 16mm equipment. The finished picture may be silent or with sound.

4. From experience acquired in the "trial film" the writer found that it is best not to use print materials for a demonstration motion picture. The design of the material detracts from the technique being demonstrated. She also discovered that it is wiser to use bright colored materials, as they photograph better than pastels.

Recommendations

On the basis of the experience acquired while working on this study, the writer has borrowed a phrase from Hoban (11, p. 104) to describe her belief -- that teacher-made motion pictures have "more planning, more rehearsing, more thought, more timing, and more selection of just the right

delivery" than any other type of visual aid. Because of this belief and in order that all teachers may have an equal opportunity to plan their own motion pictures for aids in teaching, the writer recommends that (1) school systems, city or county, equip a central motion picture laboratory and provide for the services of a motion picture photographer, (2) that the individual teacher, or the teachers from a department, or the teachers from different schools, or a combination of teachers from different departments of the school system meet and plan the motion pictures needed and develop the production scripts, and (3) that a teacher or a committee of teachers be selected to act as advisor to the photographer, who should shoot the picture according to the production scripts prepared by the teachers.

Future Plans of the Author

The writer intends to produce the short films planned for Learning to Sew. The preliminary scripts for these films appear on pages 52 through 84 of this study. As time and money permit, she plans to produce this series at the rate of twenty-four frames per second, a speed which will permit the addition of a sound track at a later date.

The writer plans to use a large viewer and rewinds from a film editing outfit in her classroom. This will make it possible for the pupils who are absent when the film is projected for class observation to run it by hand and observe the action depicted in the motion picture. When individual pupils wish to review the film, this same procedure may be used. This method has some advantages over projection, for the picture may be stopped on any frame for further observation and study.

Suggestions for Further Study

In many school systems, a general homemaking course is offered, and in some cases it is required of all ninth grade girls. Home experience is an important part of the homemaking program. Pupils gain home experience by home practice of school lessons, by general helping at home, and by home projects. Part of the homemaking program is home visiting by the teacher as well as supervision of home projects. In order that these home projects may be most effective, the teacher and student need to have the parents' consent, approval and cooperation in the project.

The writer suggests that a study might be made of typical home projects suitable for ninth grade girls. Wherever possible and when it seems advisable, short motion pictures of some of the projects might be planned and

and produced. One type of film might show a pupil carrying out a home project effectively; other films might be developed showing step by step how to do certain projects. If such films were produced, they might be used by the pupils as self-teaching films.

BIBLIOGRAPHY

1. Butterick. Dressmaking book. The Butterick company, inc., 161 sixth avenue, New York 13, N. Y., 1949. 80p.
2. Carroll, Alice. The Good Housekeeping NEEDLECRAFT ENCYCLOPEDIA. Stamford house, New York, N. Y., 1947. 465p.
3. Dale, Edgar. Audio-visual methods in teaching. The Dryden press, 386 fourth avenue, New York, N. Y., The Ohio state university, 1946. 530p.
4. Dale, Edgar, Dunn, Fannie W., Hoban, Charles F., Jr., and Schneider, Etta. Motion pictures in education - a summary of the literature - a source book for teachers and administrators - under the auspices of the committee on motion pictures in education of the American council on education. New York, The H. H. Wilson Co., 1937. 456p.
5. Dent, Ellsworth C. The audio-visual handbook. Published by society for visual education, inc., 100 East Ohio street., Chicago, Illinois, 1946. 226p.
6. Dorris, Anna Verona. Visual instruction in the public schools. Ginn and Company, San Francisco, 1928. 426p.
7. Eastman Kodak Company. How to make good movies. A non-technical handbook for those considering the ownership of an amateur movie camera and for those already actively engaged in the making of home movies who want to improve the interest and quality of their films. Eastman Kodak Co., Rochester, N. Y. 232p.
8. Greer, Carlotta C. Your home and you. Unit course in home economics. Allyn and Bacon, San Francisco, 1944. 745p.

9. Harris, Florence LaGanke, and Kauffman, Treva E. Young folks at home. Home economics for junior high school. D. C. Heath and co., Boston, 1948. 433p.
10. Hoban, Charles F., Jr. Focus on learning. Motion pictures in the schools. Prepared for the committee on motion pictures in education. Washington, D. C., 1942. 172p.
11. Hoban, Charles F., Jr. Movies that teach. (special assistant, division of visual education, Philadelphia public schools) Dryden press, New York, 1946. 181p.
12. Hoban, Charles F., Hoban, Charles F., Jr., and Zisman, Samuel B. Visualizing the curriculum. The Cordon co., New York, 1937. 300p.
13. Laitem, Helen H., and Miller, Frances, S. Experiences in homemaking. Ginn and company, San Francisco, 1941. 496p.
14. McCall. Dressmaking made easy. McCall Corporation, 230 park avenue, New York City 17, N. Y., 1948. 94p.
15. Rathbone, Lucy, and Tarpley, Elizabeth. Fabrics and dress. Edited by Alice F. Blood, PhD., Houghton Mifflin company, San Francisco. The Riverside press, Cambridge, 1948. 388p.
16. Ryan, Mildred Graves. Junior fashions illustrated by Mary Elizabeth Turner and Rosalind Welcher. D. Appleton-Century company, inc., New York, N. Y., 1944. 204p.
17. Ryan, Mildred Graves. Your clothes and personality. D. Appleton-Century company, inc., New York, N. Y., 1937, 1939, 1942. 368p.
18. Simplicity. Sewing Book. Simplicity pattern company, inc., 200 Madison avenue., New York 16, N. Y., 1947. 87p.

19. Singer. Student's manual of machine sewing.
Published by Singer Sewing machine company,
educational department, Singer building, New
York, N. Y., revised July, 1941. 48p.
20. Todd, Elizabeth, and McCullough, Helen E. Clothes
for girls, their planning, purchase, construc-
tion, and care. D. C. Heath and company,
Boston, 1947, 1948 (Revised) 455p.
21. U. S. Office of Education. Vocational education in
the years ahead. Federal security agency,
Washington, D. C., 1945. 320p.

Charts

22. Application of Slide Fasteners (Set of three wall
charts) Talon Educational Service, 420
Lexington Avenue, New York 17, N. Y.
23. Pattern Alterations. Simplicity Pattern Co., 200
Madison Avenue, New York 16, N. Y.
24. The Best Colors for Your Type. Simplicity Pattern
Co., 200 Madison Avenue, New York 16, N. Y.
25. Threading the Bobbin of No. 66 and No. 99 Machines.
Singer Sewing Machine Co., Educ. Dept.,
Singer Building, New York, N. Y.
26. Threading the Head of No. 66 and No. 99 Machines.
Singer Sewing Machine Co., Educ. Dept.,
Singer Building, New York, N. Y.
27. What Size are You? Simplicity Pattern Co., 200
Madison Avenue, New York 16, N. Y.
28. Your Dress Step by Step. Simplicity Pattern Co.,
200 Madison Avenue, New York 16, N. Y.
29. Your Pattern and How to Use It. Simplicity Pattern
Co., 200 Madison Avenue, New York 16, N. Y.

Filmstrip

30. "Suzie Makes A Dress". Sponsored by Bates Fabrics, Inc., Simplicity Pattern Co., Inc., and Talon Educational Service. Fletcher Smith Studios, Inc., 1948.

Motion Pictures

31. "Girl Scouts are in Fashion". Produced by Bates Fabrics, Inc., in conjunction with the American Girl magazine. Distributed by Association Films (Y.M.C.A.), 347 Madison Ave., New York 17, N. Y.
32. "Sewing Advanced Seams". Produced by Young American Films, Inc., 18 East 41st Street, New York 17, N. Y.
33. "Sewing Fundamentals". Produced by Young American Films, Inc., 18 East 41st Street, New York 17, N. Y.
34. "Sewing -- Characteristics and Handling of Materials". Produced by Young American Films, Inc., 18 East 41st Street, New York 17, N. Y.
35. "Sewing Pattern Interpretation". Produced by Young American Films, Inc., 18 East 41st Street, New York 17, N. Y.
36. "Sewing Simple Seams". Produced by Young American Films, Inc., 18 East 41st Street, New York 17, N. Y.
37. "Sewing Slide Fasteners". Produced by Young American Films, Inc., 18 East 41st Street, New York 17, N. Y.

APPENDIX

AN OUTLINE FOR TEACHING CLOTHING
TO JUNIOR HIGH SCHOOL GIRLS

ADVANCE BOND

CHAS. E. BROWN, Publisher

An Outline for Teaching Clothing to Junior High School Girls

The following is an outline of subject matter taught in clothing units in homemaking classes at La Cumbre Junior High School. The seventh grade classes have an eighteen week unit in clothing and the ninth grade devotes ten weeks to clothing units. The following section presents the problems that are included in the clothing work in these two years at La Cumbre Junior High School. It was necessary to set up this detailed analysis of techniques taught before checking available visual materials. This also guided the planning of those films that the writer believes are needed to supplement available filmstrips, films, charts, and posters.

Clothing Construction Techniques IncludedI. Sewing Equipment (20, p. 209-212)

A. Needles - Their names are sharps, ground downs and crewels.

1. Sharps are medium length, round eyed, and the kind most commonly used in sewing.
2. Ground-downs are short; they are used for very fine work and sometimes by persons with very short fingers.
3. Crewels are long eyed, about the same length as sharps and are used for darning and embroidery.

Needles are numbered from 1 to 12. The higher the number the finer the needle. Most sewing is done with a number 8 or number 9 needle; the number 8 being better suited for beginners.

B. Thread is bought by name, size, color, and the amount on the spool.

1. Cotton thread comes in sizes 8, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, and 150. The low numbers are coarse and the high numbers are fine. For most sewing number 70 thread is satisfactory. Fifty-yard spools or one-hundred-yard spools may be purchased.

2. Mercerized cotton thread comes in all colors, in sizes 50 to 100, and on one-hundred-yard spools.

3. Silk thread comes in all colors, but while we are learning to sew we will not be using it.

C. Thimble - A thimble is a "must" and it is usually worn on the middle finger of the right hand. (1, p. 17) Thimbles are made of gold, silver, brass, nicked steel, aluminum, and plastics. They come in sizes 1 to 12, size 12 being the largest. (17, p. 210) Thimbles of nicked steel are firm, do not tarnish and do not puncture easily, therefore they are suitable for junior high school. The small round grooves or indentations should extend down the side and should be deep enough to prevent the needle from slipping. It is important that a thimble fit well.

D. Scissors and Shears (15, pp. 23-24)

1. Scissors are less than six inches in length, while shears are over six inches in length.

2. Embroidery scissors are small, with sharp points, and are used for cutting threads but not fabrics.

3. Buttonhole scissors can be set to prevent cutting the material more than a certain distance.

4. Pinking shears have blades with sawtooth edges and they are used on firmly woven fabrics to prevent raveling.

Our school furnishes cutting shears, pinking shears, and buttonhole scissors. You will need a small pair of scissors for cutting threads.

E. Tape Measure and Rule - These are used for measuring. Tape measures should be sixty inches long, they should be numbered on both sides, and even more convenient if numbered from different ends. They should be made of cloth and they should have a metal tip. (17, p. 211) A short rule, about six inches long, is very convenient in a work-box.

F. Pins are made of brass, of iron and of steel. (17, p. 212) Steel and brass pins are more satisfactory than iron pins. Pins may be purchased in papers and in boxes and are called banker's pins, dressmaker's pins, and silk pins. Silk pins are fine and sharp and are the best to buy.

G. Pincushion - Either a pincushion or a box is needed to hold pins.

H. Emery Bag - Emery bags are packed with finely ground emery dust which will remove rust from needles and pins when they are drawn through it.

I. Dressmaker's chalk can be purchased white or colored and it is convenient to have for marking material.

J. Tote Tray - to hold your equipment. In our school we have the tote trays that fit into the cupboard. These are removed from the cupboard and placed in the spaces made for them at the work table. Each of you has your own tote tray for your equipment. Put a piece of adhesive on it with your name.

II. Getting Ready to Sew

A. Taking Measurements

1. Height - Measure from the neckline at the back to the floor.

2. Hip - Measure about six inches down from the waistline or over the fullest part of the hips, and circle the body at this point. Have the tape measure meet easily.

3. Breast or bust - Put the tape measure around the body close up under the arms, across the fullest part of the bust and straight across the back. Have the tape measure meet easily, not snug. Do not let the tape measure get twisted.

4. Waist - Measure at the natural waistline, drawing the tape measure snug but not tight.

B. Choosing a Simple Garment to Make

1. What are your needs? Nightgowns, slips, and pajamas are suggested as good problems to learn to sew on. Some of you may use nightgowns while others always sleep in pajamas, but all girls use slips.

2. Whatever garment that you choose, select a pattern for it that has very few pieces, and one that could be made easily so that you do not become discouraged while you are learning to sew.

C. Buying a Pattern

1. Know the name of the garment you are planning to make.

2. Know the make of the pattern that you have selected.

3. Know the pattern number.

4. Know the size you need.

D. How Much Material Do You Need?

1. Purchase your pattern first.

2. Study the pattern chart for the amount of material needed.

E. Selecting and Purchasing Material for Your Garment

1. Qualities of a material that will be easy to use:

- (a) A cotton material.
- (b) The material should be firm but not stiff.
- (c) One which handles easily.

- (d) One which does not ravel.
- (e) One that is relatively plain, avoid plaids, checks, uneven stripes and large floral designs.

2. Select material that is suitable for the garment you are going to make:

(a) Good grades of cotton broadcloth, long-cloth, cambric and nainsook are satisfactory for slips.

(b) Winter pajamas and nightgowns may be made of flannelette, while those for summer wear may be made of percale or cotton crepe; sometimes gingham is used for making pajamas.

(c) Check these qualities:

(1) If colored - get fast colors.

(2) Buy preshrunk or sanforized material.

(3) Make the thumb test for bursting strength. (20, p. 241)

(4) Make the pin test for pulling at the seams. (20, p. 241-242)

(5) Make rubbing test for sizing. (20, p. 242)

3. Decide what findings you need. Findings are extra supplies needed to complete a garment, such as: thread, buttons, bias tape, elastic, and trimmings.

F. Checking Your Pattern

1. Check the pieces of pattern by the direction sheet.

2. Write the name of each piece on the piece of pattern, like slip front or slip back, etc.

3. Write your name on each piece of pattern.

4. Have the pattern checked on you for size.

G. Making Pattern Alterations (20, p. 417-423)

1. Shortening patterns with tucks.
2. Narrowing patterns with tucks.
3. Lengthening patterns by splitting and setting in paper strips.
4. Widening patterns by splitting and setting in paper strips.

H. Straightening the End of Cloth (20, p. 447)

1. Pull a crosswise thread, starting where the cloth is cut the deepest. This marks a line on which to cut to make the end of the cloth straight.

2. When the cloth is folded and smoothed on the table, if the corners are not even, the cloth can be pulled and stretched until they are. (20, p. 447-448) The cloth must be stretched on the bias until selvage will lie on selvage and end on end when the material is folded through the center.

(a) Take hold of the shy corner with one hand and the opposite selvage with the other hand and pull on the bias.

(b) Pull until you feel the material stretch between your hands.

(c) Continue pulling the material on the bias and on imaginary lines parallel to the first pull, from one end of the cloth to the other.

(d) Fold and smooth the material and check it for improvement.

(e) If necessary, repeat the stretching until the corners fall together.

I. Laying the Pattern on the Material

1. Be sure that you understand the pattern markings - the fold, straight of material, seam allowance, darts, etc.
2. Lay the pattern pieces on by the guide sheet.
3. Pin the pattern with the pins at right angles to the cutting edge; do not let any pins extend into the cutting margin.
4. Have the layout checked by the teacher.

J. Cutting Out the Garment

1. Use long smooth cutting strokes with the shears.
2. Cut notches "out" and not "in".
3. Leave the pattern pinned on each piece until you are ready to use it.

K. Making a Gauge

1. Cut a piece of cardboard about $3/4$ " by 3".
2. Check the seam allowance of your garment and measure this amount from one end of the gauge.
3. Mark with a pencil.
4. With scissors cut perpendicular to the edge about half way through, and then cut out a piece at an angle. This is to be used in measuring your seam allowance; later other measurements can be added to it.
5. Write your name on your gauge.

L. Threading a Needle (9, p. 266)

1. Cut about 20" of thread from the spool; cut at an angle.

2. Hold the needle in the left hand and push the thread through the eye of the needle with the right hand.

3. Pull about six inches of thread through.

M. Knotting the Thread (9, p. 267)

1. To make a knot, wind the end of the thread around the tip of the first finger of the left hand in a loop.

2. Roll the two threads of the loop together between the thumb and the first finger.

3. Slip the twisted loop off the finger and pull the thread into a firm knot.

4. A knot is used only in basting.

N. Wearing a Thimble (9, p. 267)

1. A needle with its thread has to be pushed through the material when you do hand sewing.

2. You wear a thimble to save your middle finger from getting a hole poked into it.

3. You can sew much faster after you have learned to wear a thimble.

O. Pinning the Material

1. Take two pieces of your material and pin them together, placing the pins perpendicular to the edge, with the heads extending beyond the edge of the material.

P. Learning to Baste (9, p. 268)

1. In order to hold two pieces of material together while you are stitching, basting is used.

2. There are even and uneven basting stitches; we will first learn to do the even basting.

3. To do even basting:

- (a) Hold the pinned material between the thumb and the first finger of each hand.
- (b) Place your hands about an inch apart and stretch the material between them.
- (c) With knotted thread, place your needle in the material, and bring the thimble against the end of the needle.
- (d) Run the needle in and out of the cloth by moving the right hand and wrist up and down slightly.
- (e) Push gently and steadily with the thimble so that the needle moves through the material from right to left.
- (f) The stitches and the spaces should be the same size, about $\frac{1}{4}$ " long.
- (g) When the needle is full of basting stitches, push the material onto the thread and continue without removing the needle until the stitching is finished.
- (h) Fasten the thread by taking two or three small stitches over each other.
- (i) Always baste just below the seam line, so that the machine stitching will not catch the bastings.

Q. Making a Tailor's Tack (9, p. 432) (16, p. 16-17)

1. Before the pattern is removed from the material, study each piece carefully to determine if darts, pleats or tucks are to be made.
2. To make tailor's tacks, use a double thread without a knot; different colored thread may be used to mark darts or tucks, etc.
3. Take a small stitch through the perforation on the pattern and through both thicknesses of material.

4. Leave an end of thread two or three inches in length.
5. Take a second stitch on top of the first one.
6. Leave a generous loop when pulling the thread through.
7. Cut the thread leaving an end of two or three inches long, or stretch the thread to the next perforation and repeat, and continue until all perforations have been marked.
8. Cut the double threads that are between the perforations.
9. Remove the pattern.
10. Pull the two pieces of material as far apart as the loop will permit.
11. Cut the thread half way between the two pieces of material, being cautious not to snip the fabric. Both halves of the material are now marked alike.

R. Learning the Parts of a Sewing Machine.

1. With the help of the manual for the make or type of sewing machine, locate the principal parts of the sewing machine. (15, p. 28-29)
(16, p. 30) (19, p. 3-4)
 - (a) Head - the complete sewing machine.
 - (b) Arm - the curved part of the head.
 - (c) Spool pin - the spindle which holds the spool.
 - (d) Bed - the flat part of the head.
 - (e) Balance Wheel - the wheel at the right of the head.
 - (f) Stop-motion screw - located near the center of the balance wheel.

- (g) Bobbin winder - the mechanism for automatically winding the bobbin.
- (h) Stitch regulator - controls the length of the stitch.
- (i) Upper tension - controls the delivery of the thread from the spool.
- (j) Thread take-up - the mechanism that pulls up the slack in the thread.
- (k) Thread guide - supports the thread as it passes from the spool to the tension mechanism.
- (l) Needle bar - the bar that holds the needle.
- (m) Presser bar - holds the presser foot which holds the fabric against the feed-dog when sewing.
- (n) Presser bar lifter - raises the presser bar and presser foot.
- (o) Face plate - vertical plate at the left of the arm.
- (p) Throat plate - the plate through which the needle passes, and through which the feed-dog projects upward.
- (q) Feed-dog - the toothed part which projects through the throat plate and carries the fabric under the presser foot when stitching.
- (r) The bed slide - the flat plate at the left of the bed which gives access to the lower mechanism.
- (s) Bobbin - the metal spool on which thread is wound to furnish the lower thread supply.
- (t) Shuttle or bobbin case - the container in which the bobbin is placed.

(u) Rotary or oscillating hook - the part which enters a loop of thread and carries it around the bobbin case to form a lock stitch.

(v) Lower tension - the spring on the bobbin case which controls the delivery of the thread from the bobbin.

(w) Drive wheel - the large wheel under the table which in foot power machines is connected with the balance wheel by a belt.

(x) Treadle - the foot rest by which a foot power machine is run.

(y) Pitman rod - connects the treadle and drive wheel, so that when the treadle is operated, the drive wheel revolves.

S. Learning to Use a Sewing Machine (20, p. 222-225)

1. Learn to open it carefully and noiselessly.
2. Adjust your chair so that the front edge is even with the machine.
3. Sit squarely in the chair.
4. Do not thread the machine. Loosen the stop-motion screw so that the other mechanical parts of the head will not run.
5. Place both feet on the treadle; choose a position that is comfortable for you.
6. Place your right hand on the balance wheel and move it in the correct direction, keep turning it until you feel the rhythm of the treadle motion with your feet. Then catch that motion with your feet and continue it by treading; remove your hand from the balance wheel.
7. Practice starting and stopping until you can do it smoothly.
8. You are now ready to practice stitching, so tighten the stop-motion screw.

9. Practice sewing on paper without thread; the needle holes will show you how you are doing.

10. Place the paper under the presser foot and then lower the presser foot; turn the balance wheel and start treadling, the paper will carry away from you.

11. Never run the machine without something between the presser foot and the feed-dog for the teeth will become smooth and will not carry the material along.

12. Try stitching a straight line by following the lines of the paper. Remember that "practice makes perfect" so do not become discouraged if at first the line of stitching is not straight.

13. Use your left hand to guide the paper, holding it between the thumb and fingers; remember not to pull the material through the presser foot but let the machine carry it along. Keep your right hand on the machine table near the balance wheel so that it will be ready to stop and start the machine as needed.

14. When you can stitch a straight line, take your gauge and practice stitching your seam allowance from the edge of the material.

15. When your needle holes tell you that you can stitch straight, you are ready to practice on cloth with the machine threaded.

16. If you are using an electric machine, you do not treadle, but you start the machine by pressing your right knee or right foot against the knee or foot lever, depending on the type of lever. Your right hand is used to encourage the balance wheel to turn. Practice controlling the speed of the machine until you can make it go as slowly or as rapidly as you wish.

T. Threading a Machine

1. Study the directions for threading the machine.

2. Place the thread on the spool pin, and carry it through the guide to the tension.
3. Take the thread through the tension, the take-up, the thread guides on the face plate and finally through the needle's eye; see that the take-up is at its highest point.
4. Be sure that you know how the thread should pass through the needle; some machines are so constructed that it must pass from left to right while other models have it pass from right to left.
5. Place the bobbin in the bobbin case, but first determine whether the thread should unwind clockwise or counter-clockwise for there are two types of sewing machines.
6. Pass the thread into the slit and under the lower tension.
7. Bring the thread from the bobbin to the machine table by taking a full turn of the balance wheel with your hand. Bring the needle to its highest position and pull the top thread gently until it brings the lower thread up.
8. Pull both threads back under the presser foot, so that they will not be caught in the sewing.

U. Stitching on Material

1. While you are learning to stitch you may use the pieces that you practiced basting on, or you may baste some other pieces together.
 - (a) Insert the material under the presser foot with the beginning of the seam directly under the needle. Lower the presser foot.
 - (b) Treadle or press the knee or foot lever, and keep the machine going steadily. Watch the edge of the presser foot and keep it an even distance from the edge of the material.

(c) Near the end of the seam slow down and then stop at the end. Remember never to run the machine without something between the presser foot and the feed-dog.

(d) Bring the needle bar to its highest point, have the thread take-up at its highest point, raise the presser foot and pull the material back from under the presser foot, with the top thread between the toes of the presser foot.

(e) Cut the threads, leaving the ends long enough to tie together.

(f) Keep practicing stitching on material until you can do it straight. Remember that "practice makes perfect".

V. Sewing on Your Garment

1. Darts - are used to take out fullness where you do not want it and to put in fullness where you need it. (16, p. 185-186)

(a) On the wrong side of the material match the tailor's tacks that form the V or the tapered ends and pin them.

(b) Baste on this line.

(c) Darts may be stitched from either the wide end (20, p. 390) or the point of the dart (16, p. 186). In either way the ends of the dart should be curved slightly in the stitching to avoid points.

(1) A convenient way to stitch darts to avoid tying the threads at the tip of the dart is to pull the thread out of the needle, and put the bobbin thread through the needle in reverse order, tie both threads together. Wind the thread onto the spool until the knot is on the spool. When stitching with this continuous thread the stitching must start at the tip of the dart. One must be cautious to have enough bobbin thread wound on the spool so

that when stitching the knot does not get into the tension.

(d) Clip and remove the bastings.

(e) Narrow darts are left uncut, while wide ones are cut and pressed open. If the material is a washable one the cut edges are overcast, otherwise they may be pinked.

(f) All darts should be pressed from the right side.

(g) Darts should be made in the individual pieces of material before the pieces are put together.

2. Seams - Study your garment and then see if you can select an appropriate seam or seams for it, by watching this demonstration.

(a) Plain seam.

(1) Lay the right sides of the two pieces of material together.

(2) Match the notches.

(3) Pin perpendicular to the edge.

a' Place the pins with their heads extended beyond the edge of the material.

b' Keep the material flat on the table so that the edges will not stretch out of shape.

c' Have the pins three or four inches apart.

(4) Baste the seams, using even stitches about $\frac{1}{4}$ inch long.

a' Place the line of basting just below the seam allowance, so that the machine stitching will not catch the basting thread; use your gauge.

b' Baste across the pins; remove each pin after it has been passed.

c' At the end fasten the thread securely by placing two small stitches over each other.

(5) Stitch as far from the edge as the width of the seam allowance, using your gauge as a guide.

(6) Clip and remove the bastings.

(7) Select a seam finish appropriate to the fabric and the location of the seam.

a' Overcasting Stitch (13, p. 407)

1' Hold the raw edge of the seam in the left hand.

2' Fasten the thread in the seam and work from right to left by making diagonal stitches over the edge.

3' Work from the right side and take the stitches about 1/8 inch deep.

4' Make the stitches twice as far apart as they are deep and never draw them tight.

b' Blanket Stitch (13, p. 408)

1' Hold the material in the left hand so that the edge to be finished is toward you.

2' Fasten the thread by taking several stitches over each other on the extreme left side of the edge to be finished. The stitches should be taken as deep in the edge as the desired finish.

3' Work from left to right. Swing the thread down and to the right and take a stitch perpendicular to the edge and bring the thread up through the loop. Pull the stitch tight enough to make it firm, but not so tight as to pucker the material.

4' Continue swinging the thread down, taking a stitch, and bringing the needle up through the loop. Make the stitches about $\frac{1}{4}$ inch apart.

5' Fasten the thread by taking several small stitches over each other in an inconspicuous place.

c' Stitched Back

1' Turn an edge to the wrong side about $\frac{1}{8}$ inch deep.

2' Finger press and baste.

3' Stitch.

4' Clip and remove bastings.

d' There are other finishes for plain seams but they are not appropriate for cotton materials.

(8) Press open the finished seam on the right side.

(9) Press on the wrong side, opened or closed according to the finish and position of the seam. (20, p. 437)

a' When to press open.

1' When they are piecing seams in nontransparent fabrics.

2' When they are side seams in skirts.

b' When to press closed.

1' When they are at backs of plaits.

2' When they join waist and skirt.

3' When they are armhole seams.

4' When they cross plaits or darts.

(b) French Seam - A seam within a seam.

(1) Place the wrong sides of the material together, edges even, notches matching, ends even, and pin them together with the pins perpendicular to the edge.

(2) Baste the seam allowance.

(3) Stitch as far to the right of the seam allowance as the desired width of the finished seam, usually $\frac{1}{2}$ inch.

(4) Trim down this seam to $\frac{1}{8}$ inch or less; cut off all ravelings.

(5) Clip and remove bastings, crease the seam open on the wrong side, turning both edges the same way on the right side.

(6) Press along seam on the wrong side.

(7) Turn the garment so that the right sides of the two pieces are together, and form a new seam edge directly along the line of stitching. Crease, then press.

(8) Pin at intervals of about 3 or 4 inches. The pins should be perpendicular to the edge.

(9) Baste, placing the line of basting a little beyond the original seam allowance.

(10) Stitch along the seam allowance.

(11) Clip and remove bastings.

(12) Press the seam open on the right side.

(c) Lapped Seam (20, p. 435) (15, p. 111)

(1) Decide which side should be on top; it is the side of the seam that shows the stitching. When there is more fullness in one edge than the other, the one without fullness goes on top.

(2) Turn to the wrong side the seam allowance of the top piece; use your gauge.

a' Be careful not to stretch the top piece.

b' If the seam line is curved, clip the edge at several places so that it will not pucker.

c' Pin and then baste about $\frac{1}{4}$ inch. from the fold.

d' Press carefully.

(3) Mark the seam line on the other part of the seam with pins parallel to the raw edge. Do this on the right side.

(4) Lap the seam edges until the folded edge touches the line of pins; be careful to match notches.

a' Smooth and pat the seam into place until the ends are even.

b' Pin perpendicular to the edge and rather close together.

c' Look at the wrong side to see if the notches are still matched and the raw edges of both pieces are even.

(5) Baste the folded edge in place and remove the pins.

(6) Stitch as near the fold as desired.

(7) Clip the bastings and remove them.

(8) Press.

(d) Easy Fell Seam (20, p. 431)

(1) Place the wrong sides of the material together, allowing the under side to extend $\frac{1}{8}$ inch beyond the upper side, and with one set of notches just above the other.

(2) Pin by placing the pins about an inch from the edges, but perpendicular to them.

(3) Fold the extended edge over the other edge and baste the three thicknesses together; remove the pins.

(4) Place the seam in the machine with the raw edges underneath and stitch on a new line $\frac{1}{4}$ inch from the folded edge.

(5) Finger crease open the seam on the wrong side of the garment, making sure that the seam on the right side turns with the raw edges hidden.

(6) Press open on the wrong side as creased, holding the seam in the right position on the right side.

(7) Pin, then baste the seam down on the right side. Remove the pins.

(8) Place in the machine with the original stitching to the left and the fold to the right. Stitch close to the fold.

(9) Clip and remove bastings.

(10) Press on the right side.

(The easy fell seam is very appropriate for pajamas.)

3. Edge Finishes - Different garments require different ways of finishing the edges.

(a) Narrow Hem

(1) If you are making a nightgown or a slip you will probably meet this problem.

(2) To make the hem turn a narrow amount of material to the wrong side by:

a' Hold the material between the thumb and the first finger of each hand.

b' With the thumb of the left hand turn down the desired amount of material. This should be turned toward you. Baste.

c' As you baste keep the thumb turning down the material, keeping it an even amount.

d' When this first turn has been finished, turn down a second time and baste. Be sure that you have the hem absolutely even. If you cannot gauge it with your eye, add this amount to your gauge and measure with it.

e' Hem with the hemming stitch.

(3) Hemming Stitch (16, p. 21) This stitch is used to sew folded edges to material. The stitches should hardly show on the right side.

a' Place the basted hem of your material over the first finger of your left hand and hold it in place with your thumb and second finger.

We will call this a "finger clamp".

b' Fasten the thread in the folded edge by taking a small stitch; when the end of the thread is at the fold take another stitch but hold the needle there until you bring both threads from the eye of the needle under the point of the needle from right to left. Pull the needle through and tighten the thread.

c' With the needle pointed toward the left shoulder take up a thread or two from the material before going through the folded edge.

d' Work toward yourself.

(b) Lace (18, p. 80)

(1) Hem the material first.

(2) Put the right side of the lace to the right side of the hem, edges together.

(3) If the lace is to be gathered, pull one of the threads in the edge of the lace.

(4) Hold the hem and the lace together between the thumb and the first finger of the left hand, with the lace toward you.

(5) Work from right to left and catch just a thread of the fabric and the edge of the lace together with the overhanding stitch.

(6) To join the lace overlap the ends of the lace with the pattern matching and hem it.

(7) Overhanding Stitch (13, p. 408) (20, p. 443-444). This stitch is used to hold two finished or folded edges together, as in sewing two selvages together, sewing lace on a hem, or putting

a hem in a napkin or tablecloth.

a' Place the right sides of the material together.

b' Hold the edges to be overhanded in a horizontal position with the thumb and the first finger of the left hand.

c' Fasten the thread at the edge of the material and work from right to left, using a single thread.

d' With the needle pointed towards you, bring it through the material at right angles making very shallow stitches.

e' Keep the stitches close together and all the same depth in the material.

f' Pull the thread firmly, but not so tight that it wrinkles the edge or forms a ridge.

g' Fasten the thread securely at the end.

h' Spread the two overhanded pieces, and press from the right side. The stitches should be almost invisible from the right side.

(c) Bias Binding or Facing - If you are making pajamas, often the top part is either faced or bound with bias, especially around the sleeves and the neck. True bias can be stretched to fit curves.

(1) To cut bias (2, p. 37) (20, p. 375-377)

a' Fold the material so that the selvage lies parallel to a crosswise thread, then pin into position.

b' Cut the fold, being careful not to stretch the material nor to cut a jagged edge. You now have two pieces of material lying on each other with their true bias edges together.

c' From the bias edge, measure the desired width of the bias strip, mark with dressmaker's chalk, and cut.

(2) To join bias

a' Make sure that the ends of each strip are selvages or are cut on the straight of the material.

b' Lay two strips with their right sides together and their ends parallel to each other; the lengths will be perpendicular.

c' Slip the ends along on each other until the corners of each piece extend beyond about $\frac{1}{4}$ inch.

d' Pin perpendicular to the edge and then baste.

e' Stitch from angle to angle which was formed by the extended ends; this prevents a "jog" in the joined pieces.

f' Press the seam open.

(3) To use bias - An easy way to use bias as a binding or as a facing (16, p. 188):

a' Fold the bias in half, wrong sides together, and press. Avoid stretching the bias by using the iron as a weight and by not moving it on the bias fold.

b' Pin the two raw edges of the bias to the raw edge of the material, on the right side if it is to be hemmed, and on the wrong side if it is to be stitched.

c' Baste, remove the pins, and stitch.

d' Clip and remove the bastings and tie the threads.

e' Trim the edge to within $1/8$ " of the stitching.

f' If binding, bring folded edge over the raw edge to the stitching; if facing bring the folded edge all the way over leaving a slight line of the garment extended beyond.

g' Pin and then baste.

h' Remove the pins and either hem or stitch depending on which side of the garment the binding or facing turns.

4. Gathering and Shirring (8, p. 557-558)

(a) Gathering stitches are made exactly like running stitches. These are made as you did your even basting, except that the stitches are made tiny. Knot your thread, then fill the needle with stitches and push them back on the thread. (18, p. 30)

(b) Shirring is made by placing rows of gathers one under the other. Space the rows as desired. (18, p. 30) In shirring it is especially important to use thread of the same color as the garment and to take stitches of uniform length. (8, p. 558)

(c) Gathering and shirring may also be done by machine, using a long stitch, loosening the upper tension slightly, and after stitching drawing up the lower thread. (8, p. 558) (18, p. 52)

(d) Spacing gathers or shirring.

(1) Divide the material to be gathered into four or more equal spaces and mark with thread or chalk.

(2) Divide into the same number of spaces the section to which the gathered portion is to be applied, and mark it likewise.

(3) After making the gathering stitches, pin the two pieces of material together, matching the markings.

(4) Pull up the gathering thread or threads and wind the end or ends around a pin.

(5) Distribute the gathers evenly in the section, pin them in place and then baste.

(6) When stitching, keep the gathered section up so you can watch and control it.

5. Setting in a Sleeve (18, p. 60-61)

(a) Make the underarm seam of the sleeve.

(b) Make two rows of gathers around the top between the notches, one on the seam line and the other above.

(c) Have the sleeve right side out and the garment wrong side out.

(d) With the right sides together, pin the sleeve in the armhole with the seams matched.

(1) Hold the sleeve toward you.

(2) Match the notches and the shoulder line.

(3) Space the gathers evenly after drawing up the threads, and pin them into position. Remember to always pin at right angles to the edge to be basted.

- (e) Baste along the seam line with small stitches.
- (f) Try on the garment to see how the sleeve fits.
- (g) Stitch the sleeve into the armhole.
 - (1) Start stitching at the underarm seam.
 - (2) Have the sleeve side of the seam up in the sewing machine.
- (h) Clip and remove the bastings.
- (i) Press the seam.
- (j) In cottons and other washable materials, blanket stitch the seam for the finish.

6. Fastenings

(a) Buttonholes (2, p. 64) (8, p. 587-588)
 The buttonhole stitch is used when making a hand worked buttonhole. It may also be used to sew hooks and eyes as well as snaps onto a garment. To make a buttonhole:

(1) Mark the place for the buttonhole; the size depends upon the size of the button.

a' Buttonholes may be strengthened by machine stitching before cutting, or they may be strengthened by stranding and overcasting after cutting.

b' Buttonholes may be made with a fan and a bar or with two bars.

(2) Cut the buttonhole; fasten the thread at one end and strand the hole by having the strands on the right side of the buttonhole run lengthwise of the hole and the strands on the wrong side being very short as they run across the ends.

Go around the hole two times with the strands and then overcast the buttonhole. Overcast the cut edges with short stitches; these have two purposes: they hold the two pieces of the hem together and they also prevent the slit from raveling.

(3) To make a buttonhole start to work at the end that will not receive the strain when used; the fan is always placed next to the button. Work from right to left.

(4) Hold the slit along the first finger of your left hand.

(5) Put your needle into the slit, bringing it out through the material towards you just below the overcasting stitches and in line with the end of the slit.

(6) Before you pull the thread through, bring the two threads that come from the eye of the needle around and under the point of the needle from right to left.

(7) Draw the needle out of the material, and straight up from the edge of the slit in order to place the knot or "purl" on the raw edge. Do not pull the thread too tight or the material will pucker.

(8) Make the stitches close enough so that the purls touch each other but do not overlap.

(9) At the first end, let the stitches spread out like a fan. Start the fan before the end is reached in order that the purls will not overlap. It takes about five stitches to make the fan.

(10) Continue doing the buttonhole stitch until you reach the other end.

(11) Take two stitches across the end of the buttonhole, and cover these with blanket stitches which are made cross-wise. This makes the bar.

(12) Push the needle to the wrong side of the material at the end of the bar and fasten the thread by taking several tiny stitches over each other.

(b) Buttons (17, p. 259) (18, p. 74) (9, p. 274)

Before sewing on buttons, the button holes should be made and the place for the buttons located.

(1) Mark the place where the button should go with a pin.

(2) Fasten the thread into the material at this point.

(3) Sew through the button.

(4) Place a pin on top of the button under the stitch.

(5) Continue sewing until sufficiently firm.

(6) Remove the pin and wind the thread under the button several times. This stem or shank makes it easy to button a garment of heavy material.

(7) Fasten the thread securely on the wrong side.

(c) Hooks and Eyes (1, p. 61) (20, p. 416-417) Use straight eyes where edges of garment overlap. Use round eyes where the edges meet.

(1) Mark the position for the hook and eye.

a' Sew each hook in three places; through the two rings and at its end.

b' Use either overhand or button-hole stitch.

c' Use thread to match the color of the garment.

d' Do not let the stitches show through on the right side.

e' Sew the eye exactly opposite the hook.

(d) Snaps (1, p. 61)

(1) Mark position for snaps, spacing evenly.

(2) Through a hole sew in place with either the overhand or the buttonhole stitch.

(3) Do not let stitches show on the right side of garment.

(4) Slide needle and thread under snap to the next hole, and continue.

(e) Slide Fasteners (20, p. 449-455)
(8, p. 483-484) (18, p. 66-68)

(1) Leave the opening for the slide fastener $\frac{1}{2}$ " longer than the zipper.

(2) Follow the instructions for inserting the particular type - neck opening, skirt opening, or dress placket.

7. Hanging a Hem - The normal hemline, or the finished edge of a garment, is the same distance from the floor at all points. The distance from the floor depends upon the season's style.
(13, p. 340) (20, p. 308-309) (20, p. 411-413)

(a) Everything about a garment should be finished before it is hung.

(b) The garment should set freely on the wearer.

(c) The wearer should stand on a strong table in a natural posture with her arms hanging at her sides, and looking straight ahead.

(d) Determine the number of inches that the garment should be from the floor and mark with a rubber band on the yardstick, or one may use a patent device.

(e) Hold the yardstick with your left hand against the dress, and perpendicular to the floor.

(f) With your right hand place a pin in the dress in line with the rubber band and parallel to the floor.

(g) Place the pins about two inches apart.

(h) Have a pin at each of these places: center front, center back, all seams, all plait edges. (20, p. 309)

(i) When you have gone all the way around look to see if the pins form a straight line parallel to the floor.

(j) Have the wearer turn around and recheck with the yardstick.

(k) When straight remove the garment.

(l) Turn hem to wrong side along line of pins, remove pins and place them perpendicular to the fold - the line formed at the bottom should be smooth.

(m) Baste the fold and remove the pins.

(n) With the garment wrong side out, pin up the top of the hem in several places to prevent its falling down when the garment is tried on again for hem-line approval.

Mr. L. BROWN Paper

(o) Try on the garment and have the hemline inspected to make sure that it is even. If uneven make the necessary changes and then remove the pins.

(p) Hunt for the narrowest part of the hem; use this for the measurement of the hem and make a cardboard gauge this size. Notch the gauge $\frac{1}{2}$ inch from one end for the amount to be turned under.

(q) Use the gauge and chalk to establish both the width of the hem and the amount to be turned under.

(r) To make the hem even, cut along the top markings.

(s) Turn edge down to wrong side on second line marking and baste. Stitch it on the sewing machine. Clip and remove the bastings.

(t) Pin the hem to the garment, matching center front, center back, seams, etc. To take up fullness lay small plaits in the edge and pin them to the garment. These should turn from either side of the center front towards the back.

(u) Baste the hem in place.

(v) Cotton garments are generally finished with the hemming stitch. You learned to do this stitch when you made your narrow hems.

(w) Other ways that hems are sometimes finished are:

(1) Slip Stitch (2, p. 19) (15, p. 114) (20, p. 446) The slip stitch is often used as a hemming stitch or as a basting stitch. It is made with the fold of one piece of fabric lying on another piece, or it may be made between two folds. It is done from right to left.

a' Fasten the thread in the fold.

b' Exactly opposite where the thread leaves the fold stick the needle into the other piece of material and take a stitch parallel to the fold and bring the needle out beside the fold.

c' Exactly opposite the point where the needle emerges, stick the needle into the fold, let it run along in the fold, and bring it out through the edge of the fold.

d' Repeat until finished.

e' Pull thread snugly and fasten.

(2) Catch Stitch (2, p. 20) The catch stitch is used to hold facings in place and it is often used in place of the hemming stitch when putting hems in garments, especially those of woolen material.

a' Have the hem basted.

b' Fasten the thread in the hem.

c' Work from left to right, catch a thread in the garment and then one in the hem in a zig-zag fashion, with the needle always pointed from right to left.

d' Repeat until finished.

e' Make the last stitch in the hem and take two stitches over it to fasten the thread.

f' Bring the needle out between the two pieces and cut off the thread.

g' Clip and remove the bastings.

h' Press on the right side.

ADVANCE BOND

WILL BROWN Paper