

MARIONETTES, PUPPETS AND SHADOW PLAYS

APPROVED:

J. C. Matthews
Major Professor

Conrad S. Stafford
Minor Professor

J. C. Matthews
Director of the Department of Education

Jack Johnson
Dean of the Graduate Division

MARIONETTES, PUPPETS AND SHADOW PLAYS

THESIS

Presented to the Graduate Council of the North
Texas State Teachers College in Partial
Fulfillment of the Requirements

For the Degree of

MASTER OF ARTS

By

Emma Dean Nickle

Gainesville, Texas

August, 1947

151937

TABLE OF CONTENTS

	Page
LIST OF ILLUSTRATIONS.	iv
Chapter	
I. INTRODUCTION	1
II. HISTORY OF MARIONETTES, PUPPETS AND SHADOW PLAYS	7
III. METHODS, PROCEDURES AND MATERIALS OF CONSTRUCTION	17
IV. EVALUATION OF MARIONETTES, PUPPETS AND SHADOW PLAYS	105
V. SUMMARY AND CONCLUSIONS	132
BIBLIOGRAPHY	138

LIST OF ILLUSTRATIONS

Figure	Page
1. Muslin Puppet	23
2. Ball Puppet	26
3. Cloth Puppet	29
4. Simple Marionettes	32
5. Plaster Moulds	44
6. Plaster Moulds	46
7. Plaster Moulds	48
8. Hands	56
9. Feet	61
10. Body	66
11. Joints	68
12. Body	70
13. Joints	72
14. Body	75
15. Hip Joints	76
16. Complete Marionette	77
17. Complete Marionette	78
18. Simple Wire Controls	80
19. Dowel Rod Control	82
20. Airplane Control	83
21. Airplane Control	84

22.	Stringing of Figure 21	85
23.	Control	86
24.	Stringing of Figure 23	86 a
25.	Fist Puppets	94
26.	Photographs137 a

CHAPTER I

INTRODUCTION

Statement of Problem

It is the purpose of this thesis to determine the function of marionette, puppet and shadow plays as a tool for learning in the elementary school. Never has there been so urgent a need for schools to re-examine their relationship to the children who come to them. Children have capacities to be developed. The teacher is no longer regimented to the teaching of a prescribed course of study and a given textbook; therefore, she may choose the method or methods that facilitate learning and the developing of these capacities. The teacher has become the guide to the learning experiences of children; she has become the "director of curriculum" in her classroom.

This study is an investigation of puppetry as a tool for those interested in the child of elementary school age and in the curriculum best suited to him. The modern school requires a much wider knowledge of children, their personalities, and the way they learn. It requires an understanding of profitable learning experiences and of ways to

organize and present them. It requires that the teacher utilize all these factors and forces in providing an educational program.

The keynote of this investigation lies in the fact that it is about plays and not plays -- play which fosters creative thinking. The elementary school program should offer opportunity for a wide and varied creative experience for every child who enters it. One of the greatest satisfactions is that of creating something. The child's creation will be child-like, lacking the finish of the adult, but it will be a success if it has been a gratification to him as creator. It is this emotion that is more valuable than the finished product. Children are not primarily aiming to produce things, they are creating or giving expression to their own individual feelings.

Educators everywhere are sensitive to a need for a new educational philosophy to meet the changing pattern of living. They are evaluating present and proposed curricula in an effort to determine the objectives, the subject matter, and the methods which give a broad base of information to cope with the present complex life plus an absorbing urge toward mental curiosity on the part of the child.

Volumes of material have been written on puppetry. Many of these publications, however, are not suitable for use with children although they contain ideas and explanations

of techniques which are useful to the teacher who desires to have children make and use puppets.

The writer proposes to combine the information concerning puppets gathered from works of outstanding puppeteers and authors and justify its worth in the elementary school according to educational principles underlying such activity. If it substantiates a place in the progressive school curriculum, a summary of its values might encourage others to wider fields of endeavor. It is to be hoped that this study will reinforce the value of puppetry for those who are seriously attempting to meet the need of creative education in their classrooms and who realize that there are other changes in the child which are even more important than his mastery of some facts.

Purpose

Perhaps the puppet play is its own sufficient excuse for being and needs no further introduction or justification. This would be so if it enjoyed a wide use as do other forms of simple dramatization. But as the puppet play is not widely used, a statement of some of its merits as a form of creative expression would not seem out of place.

In approaching the study of puppetry for work in the elementary school, the writer has endeavored to keep in mind modern educational methods. This study is not seeking

to introduce a new subject, even if there had ever been a time when puppetry was new. Instead, the aim is to take the subjects which we all use and teach them according to the best recognized methods. Nor is the writer recommending a "steady diet" of puppet shows. As teachers face the problem of what to do and how to do it, puppetry may be one challenge to the newer program.

Every puppet show exercises all phases of the learning process, "seeing, hearing, doing." It involves art, literature, handicraft, language, history, arithmetic, and voice work in its simplest form, such as attention to enunciation and proper expression. It frequently includes rhythm and song. There are also the less concrete requirements such as initiative, originality, cooperation, and ability to do the right thing at the right time. It gives opportunity for expression of self, social development, personality, discipline, respect for talents of others, and group living. Puppetry is the use of several related phases of a unified functional situation.

This investigation is not primarily concerned with puppets as an "auditorium exercise" nor a pleasant way of financing some worthy cause, nor as "busy work." Instead, it considers puppetry as a serious educational plan for enlisting the fullest mental alertness and sustained manual skill, while at the same time serving as a

mainspring for learning an infinite amount of varied information in a most pleasant and permanent way.

This discussion has to do with suitable puppetry materials, desirable procedures and development of an acquaintance with an interest.

The puppet expresses every thought, mood, and fancy of the one who pulls the strings.

Source of Data

Data for this study have been taken from books written by authorities in the field of elementary education and in the field of puppetry. Selected articles from a few periodicals, material from yearbooks, and references from educational bulletins have been used.

Situations taken from the actual classroom procedure of the writer have been of great value in developing this study. Too, the data from personal interviews with some elementary teachers have given direction to the educational field of study.

Emphasis has been placed on methods of instruction, individual differences of children, and growth through group and social development in the curriculum of the present day school.

Realiability of Data

This has been a comparative study, using data collected

from the study of material written by authorities, and data shown in results from personal interviews, as well as those taken from actual classroom procedures of the writer. Marionettes, puppets, shadow plays, stages, scenery, properties, lighting systems and controls have been made by the writer and the many procedures and methods of making equipment have been studied. All have been tested by the writer for practical and functional use with children in the elementary school.

Statement of Definitions

Puppet, in modern usage, is the name given all theatrical figures animated under human control. Some puppets, worked from above by strings, are called marionettes, and it is this type which is now most popular in America. Hand-puppets or fist-puppets, fitting over the hand like a glove and moved by the wrist and fingers (the traditional Punch and Judy are of this type) are next in popularity. Shadow figures, both silhouettes and translucent ones, are thrown on a screen by light and may even be the shadow of a person. Besides these three types of puppets there are others, some worked with sticks and rods from beneath, some with wires from the sides of the stage. James Juvenal Hayes in the yearbook "Puppetry," has classified seven main types, each with variants.¹

¹Paul McPharlin, Exhibition of Puppets and Marionettes, p. 2.

CHAPTER II

THE HISTORY OF PUPPETS, MARIONETTES AND SHADOW PLAYS

We pass a man in the street every day without looking at him. But if somebody points him out to us as a descendant of a Mayflower settler, or one of the early presidents of the United States, we may observe him sharply, and see much in him. So it is with those wooden figures, the puppets in a Punch and Judy show, or on the knee of a ventriloquist. We take them very much for granted. Who invented them? Somebody who lived in Plymouth, Massachusetts, about 1620? No, for they existed long before that. Dates and places are difficult to fix, puppets were first conceived so long ago.

Puppets of one sort or another have fascinated and mystified man in most periods of history and in all types of civilization. Puppets have been known from early times and no country nor date can be given their innovation.¹ They have played an extraordinarily important part in the cultural history of the world, and at times have nearly

¹Margaret K. Soifer, With Puppet, Mimes and Shadows, p. 6.

replaced the real theater.² The shadows, as well as the puppet theater, were born in those wholesome days of the world's childhood when art and religion went hand in hand. Puppets and shadows were cultural symbols.

At the mention of puppet and shadow plays the mind flies back to the early days of China, Egypt, Greece and Rome, but the origin of the puppet is still somewhat of a mystery dating back to the earliest stages of civilization.

The roots of the family tree of the puppet family are deep in the life of ancient Egypt, India, Persia, China, Japan and Java. Its great trunk springs from the soil of Greece and Rome. Its branches spread over Europe and reach America.

Long ago in Egypt, there were little carved figures of wood and ivory with limbs that could be made to move by pulling strings.³ We do not know for what use these figures were intended. They may have been the very first dolls in the world or they may have been little images of the great gods which the people of that country worshipped. We do know, however, that they were treasured and were buried with

² Frank Marshall, Puppets, Ventriloquial Punch and Judy and Marionettes, p. 2.

³ Winfred A. Mills, Louise M. Dunn, Marionette Masks and Shadows, p. 1.

the kings and queens of ancient Egypt in their tombs, near the banks of the Nile. Some people tell us that the great idols in the Egyptian temples were puppets and that the priests concealing themselves inside their bodies could make them move their hands and open their mouths.⁴ This so amazed many of the people who saw them that they fell down and worshipped them.

The primitive man who hit upon the trick of speaking by emitting air from his lungs slowly through the glottis without perceptible movement of his lips or jaws, may well have mystified his companions. They were ready to believe that a tree, or a rock, or any other strange object nearby was causing the words. The ventriloquist (from the Latin "venter", belly, and "loqui", past participle of the verb to speak), with his magic power became identified with spirits and demons, a creator of awe among his fellow mortals. When he set himself up as priest, intermediary between man and spirits, he used his ventriloquial skill in causing images of these spirits to speak. The images he might make with moving heads and lips -- the first puppets -- so that the words might all the more seem to issue from their throats.

We have records that such images were used in ancient

Egypt and Greece at least four centuries before the Christian era. They belonged in the temples, however; they fascinated people because they spoke prophecies and divine judgments.

The life of primitive man was full of peril. Out of the struggle to survive the dangers which threatened him on every side came fear and superstition. He developed a great regard for things about him which he could not understand. Among these mysteries were movement of puppets and shadows; they moved and changed, appeared and disappeared. The shadow became for him a living thing. He came to look on his own shadow as his very soul.

Gradually, the superstitious fear of shadows passed. In the place of this fear came an interest in using puppets and shadows for entertainment. This may have been suggested by the shadows that fell on the walls of the sacred tent while the priests within were performing the holy rites.

A century or two later, string-puppets (more of the kind we know) and shadow-puppets of the translucent parchment, in human form, came to be used in Greece and China, respectively.⁵ At first they were considered supernatural when they spoke, and these little figures, in time, began

5

Frank Marshall, op. cit., p. 2.

to be considered less seriously, as they learned to joke and perform antics and became human. They sang and danced, with short memory of their magic origin. These two basic types of puppets, the shadow from China and the string, or hand-operated figures from Greece, began to travel also. The first came west, and arrived in Europe in the eighteenth century as Chinese Shadows. The second went eastward and reached China and Japan somewhat sooner, for they have been known in these countries, and even in Alaska (which was thought to have been settled by Asiatics) for centuries.⁶

In all Eastern countries the people usually preferred flat shadow figures to round marionette figures.⁷ Such shadow figures were made from carefully-prepared skin of a goat or buffalo. After it had been stretched and dried, a clever artist took the translucent skin and cut from it figures which represented the gods and heroes of the people. Some figures were elaborate patterns made by means of many small holes of different shapes and sizes. These figures were further enriched with transparent colors and gold. The arms were jointed at the shoulder and elbow. Slender rods were fastened to the body and arms to move the shadow on the screen.

⁶ Margaret K. Sofier, op. cit., p. 5.

⁷ Winfred A. Hills and Louise M. Dunn, op. cit., p. 208.

The Japanese people made their puppets entertain the gods as well as the people.⁸ This may be the reason that the Japanese have become more expert in making marionettes move their hands and their fingers and even lift their eyebrows to show scorn or surprise.

When puppets became dramatic performers and their operator was hidden behind his miniature stage, he had no need for ventriloquism; but the ancient art was preserved by the manipulator who made no use of scene or stage and who conversed with the lay-figure seated before him.

In the dark church of the Middle Ages, moving perhaps only as the flickering candles caught the gold embroideries of their garment, stood little figures to portray scenes from biblical lore. In the center would be the heroine Mary who gives her name to marionettes.⁹

The puppet show was not first introduced to America from Europe. The American Indians, particularly those of the northwest coast and the pueblo tribes in the Southwest, used it in their religious ceremonials to represent spirits of totem animals and of the dead, made visible through the magic of the medicine man.¹⁰ Operated in huts faintly

⁸ Ibid., p. 6.

⁹ Frank Marshall, op. cit., p. 4.

¹⁰ Paul McPharlin, op. cit., p. 2.

illuminated by a fire, their strings or other means of operation were concealed and their motion must have seemed supernatural. However, with the coming of the European, these puppets were hidden away, and are now seldom used except in the Southwest.

So far as is known at present, marionettes and hand-puppets were first employed for small theaters by the ancient Greeks.¹¹ But shadow-figures were first used in China.

The first European puppets on record within what are now the United States came from England, and in New York City, in 1747, presented the ambitious piece, "Punch's Opera, Bateman or the Unhappy Marriage." In 1771, Spanish hand-puppets played in New Orleans. By 1792 marionettes were observed in Boston, although they had probably toured all the seacoast cities which tolerated theatrical entertainment.¹²

The hand-puppet, because of the ease of traveling with its small stage, became increasingly more numerous in the cities of the eastern United States, and ventured westward as soon as the pioneers were established in their frontier settlements. With the growth of cities, elaborate marionette

¹¹
Ibid., p. 3.

¹²
Ibid., p. 3.

companies again came over from Europe.¹³

This influx of companies inspired a large group of native American showmen. Puppets, by the end of the nineteenth century, girdled the world.

In the twentieth century, for the first time in their career, puppets became recognized as a special medium capable of playing in their own way.¹⁴ Goethe had written for his toy theater, and had written about it. George Sand had sewed costumes for her son's puppets, and she wrote about them. Puppets had risen in the social scale: from the streets and fairs they were accepted in the palace, the literary salon and, finally, the middle-class parlor. They were provided with plays, although perhaps only skits and satires, all for themselves.

The final step in the development was taken by artists and men of the theater, once bitter rivals of the audience-drawing puppet show that set up in a tent beside their playhouse.¹⁵ Artists saw the elaborate nineteenth century extravaganzas and fairy plays; they were charmed by the limitless scope of a miniature stage for scenic effect and character-modeling. A new and sophisticated puppet theater took form. Gordon Craig, in 1908 gave impetus to the development

¹³ Ibid., p. 3.

¹⁴ Ibid., p. 4.

¹⁵ Ibid., p. 4.

by writing that the puppet could be a better actor than the human being.¹⁶ Illustrators, designers, and sculptors worked at puppet-making in their spare time and gave performances.

Every person is proud of his famous friends. Can you imagine having so many famous friends that you cannot count them? This is the good fortune of puppets. The names of all their Egyptian friends seem to be lost. But it is not so with their Grecian friends, Archimedes, Socrates and Plato are the names of three famous friends that have come down to us. Kings and queens were among the famous friends of puppets -- Empress Marie, Emperor Antiochus, Charles V, Saladin, and Louis XIV. Puppetry has fascinated some of the most brilliant literary minds that have ever existed. Famous literary friends include Shakespeare, Ben Jonson, Cervantes, Goethe, Voltaire, Maurice Maeterlink, Anatole France, and Goldon. We find other friends, but none greater than Michelangelo and Constantin Stanislavsky. Perhaps the friends who have done most to keep the world interested in marionettes are Gordon Craig and Tony Sarg.¹⁷

Names of other noted puppeteers of the twentieth century are Ellen van Volkenburg, Maurice Brown, Remo Bufano and Helen Haiman Joseph. A play of literary merit

¹⁶ Ibid., p. 5.

¹⁷ Bessie Flicklen, A Handbook of Fist Puppets, p. 3.

produced with puppets of artistic finesse has become established in the country; and while it has not been followed consistently because puppet-making got out of the shelter of studios to gain a living among the general public, it has become fixed as an ideal.

As puppet shows and puppeteers sprang up all over the country, it was found that many lacked great originality, but most became proficient enough to enchant ever-widening circles and to convert them to an enthusiasm for puppets. Schools and clubs joined the movement, making their own productions. Educators acknowledged that puppet-making belonged in the curriculum and today half a dozen leading colleges instruct teachers in it so they may guide their pupils.

So when next you see Funch and Judy, or the ventriloquist's smart boy chattering thoughtlessly away, look closely and you may be able to detect a trace of those dim ancestors who filled with awe the worshipper by the Nile or the Emperor in his Asiatic palace, or the medieval pilgrim.

As in the past, so today, figures are used for entertaining. The modern figures are very much different from those used in the past. The puppet has entered the field of education as a serious tool of learning and educators use this varied and constructive aid.

CHAPTER III

METHODS, PROCEDURES AND MATERIALS OF CONSTRUCTION

Few articles written on puppetry give definite directions for puppet making and puppet showing. Many of the directions given are too complicated to be practical for elementary and primary school purposes. A project which forces upon the pupil the acquiring of a skill beyond his level should not be used. With these essential requirements in mind, this thesis has tried to adapt the marionette work to the various stages of the elementary school.

The types of puppets are not designated as pre-school, first grade, second grade, and the like, for the reason that the dramatic freedom, literary background, and hand-craft ability, together with the experience of the teacher in working with puppets, vary greatly in different localities. For a first effort, simplicity even in the fourth grade is distinctly advisable. Again, it must be remembered that while the pre-school and the second grade may use the same play, the latter would be capable of much more elaboration in the construction of figures and scenery.

The fact that the included patterns (Figures 1-25) are

for use primarily in pre-school, first and second grades, is due to the limited use of pattern work above the second grade. Doubtless some of the freehand drawings of the first and second grades could be used to advantage, but for a performance where there is to be an audience, of either parents or visiting classes, the correct forms are much more pleasing and instructive. Early in the elementary grades patterns cease to be of use as an aid to learning. If the group does not seek to acquire skill in freehand drawing so much as to implant facts, truths and subject matter through the use of suitable materials, then patterns are probably justified. The finished performance should ever remain secondary to the pupil's development.

The little child of five should not attempt anything more complicated than a picture on a stick to be manipulated above a curtain. These pictures may be cut from old picture-books, magazines, advertisements, or ready-made cut-out assortments.¹ If the class has skill, they may cut out simple figures from patterns based on squares, circles, and triangles of colored paper for use in their show. In preparing picture-puppets several things should be remembered. They should be large enough to be clearly seen; they should present a side view so that the features

¹ Emma Petty, The Puppet as an Elementary Project, p. 23.

are seen in profile -- if possible, the nose and chin should be slightly enlarged, the outlines should be heavily drawn and the coloring of vivid poster-like quality. If pictures from books are used, it will be hard to make an opposite side to match, so the play will have to be arranged so that the blank side will never be turned towards the spectators. If outlines or figures are used and colored, a duplicate to be pasted on the other side can easily be made. The puppet can then be made to turn and go in either direction.

A more ambitious puppet may be handled by the child of six or seven. After a copy of an outline figure or cut-out has been taken, the picture may be pasted on beaver-board or on heavy cardboard, and either cut or sawed out.² A duplicate should be pasted on the opposite side and both colored alike. A coat of shellac will make it more durable. If a jointed puppet is desired, each portion of the figure is pasted and sawed out separately; then all are joined with brads. Small steel washers make the movement easier. The brads should be fastened securely. Small children would not likely be able to work all the joints, so those not to be used are made stationary.

The same puppet moved along a tightly stretched curtain, illuminated from behind, serves as a shadow puppet.

²
Ibid., p. 23.

Small firm types of vegetables -- the carrot, the turnip, the radish, the potato, the beet and others -- make good finger puppets.³ A hole can be dug in them for the fingers. Children will delight in adding crude features and limbs. The features may be cut out and pasted on or made from other small vegetables and fruits fastened on with a toothpick. Some vegetables that are pointed at the root end -- such as the carrot and the turnip -- may be turned upside down and the natural green top will serve for a neck ruffle. If it has no green, cheese cloth or paper substitute can be used.

With a kitchen paring knife, carve a large potato, using broad, simple strokes until you have the desired form.⁴ If it is for a hand-puppet, make a hole in it to fit the puppeteer's forefinger. For other types, insert a dowel or other stick for the neck. Paint the head while wet with tempera or water colors; add hair and eyes if the head is to be used immediately, but it is better to put it aside until it has dried somewhat before completing the details. Wrinkles will appear, hence potatoes are best used for grotesque or old heads. Apples can be used in a similar way.

Eggshells make very pleasing heads, especially

³ Ibid., p. 24.

⁴ Marjorie Batchelder, The Puppet Theater Handbook, p. 80.

Chinese or Japanese.⁵ The large end serves for the top of the head; the small end makes a good chin. In order to prevent the shell's cracking, the hole should be pricked gently with an ice pick to give an opening, not larger than a dime, through which to extract the contents. Trim the hole to about the size of a quarter and bind the edges by pasting tissue paper or small strips of Scotch tape around it. Add features and hair, roll a piece of paper into a cylinder the size of the hole and paste into it. The cylinder should be long enough to reach to the top of the egg and extend outside to form a half-inch neck. The body may be made of bleached muslin cut front and back alike. When the two are sewed together at the sides, the neck is ready to be pasted around the cylinder neck of the doll. Two lengths of cheese cloth draped over it and sewed under the arms and down the back give a kimono effect.

An easy way to make a finger puppet is to use the ready-made head and arms of a doll. When dressed, use the thumb and fourth finger in the arms while the forefinger goes into the head.⁶ It is necessary to use light heads that will not be too heavy for small hands to operate.

⁵ Emma Petty, op. cit., p. 32.

⁶ Winifred H. Mills and Louise M. Dunn, op. cit., p. 58.

A puppet for simple creative play can be made of muslin on which heads of colored construction paper are pasted. Front and back are cut alike with arms, hands and head extended.⁷ No dress is necessary although decoration could be added to the muslin skirt. The heads can be changed on these sack figures and used for different characters in many simple plays. (See Figure 1.)

A third grade group used bottles to work out a very pleasing little play. They wrapped the neck of the bottle to form a head, which they painted, rolled a long piece of cloth and tied around the bottle to form arms, then added papier-mache hands.⁸ For a play, they chose one in which the characters wore long robes of royalty. The strings and frame used were a simplified form of the regular marionette control. Only four strings will be needed -- one for each arm and one on each side of the head. Felt or rubber pasted on the bottom of the bottles deadens the noise of moving the bottle over the stage. If desired, legs and feet may be attached to this bottle puppet from a cloth band around the bottom of the bottle.

Stocking darners, potato mashers, rubber balls, wooden spoons, gourds and many other things can be used for basic head shapes.⁹ To these can be added features and hair of

⁷ Margaret Soifer, op. cit., p.101.

⁸ Emma Petty, op. cit., p. 34.

⁹ Marjorie Batchelder, op. cit., p.80.

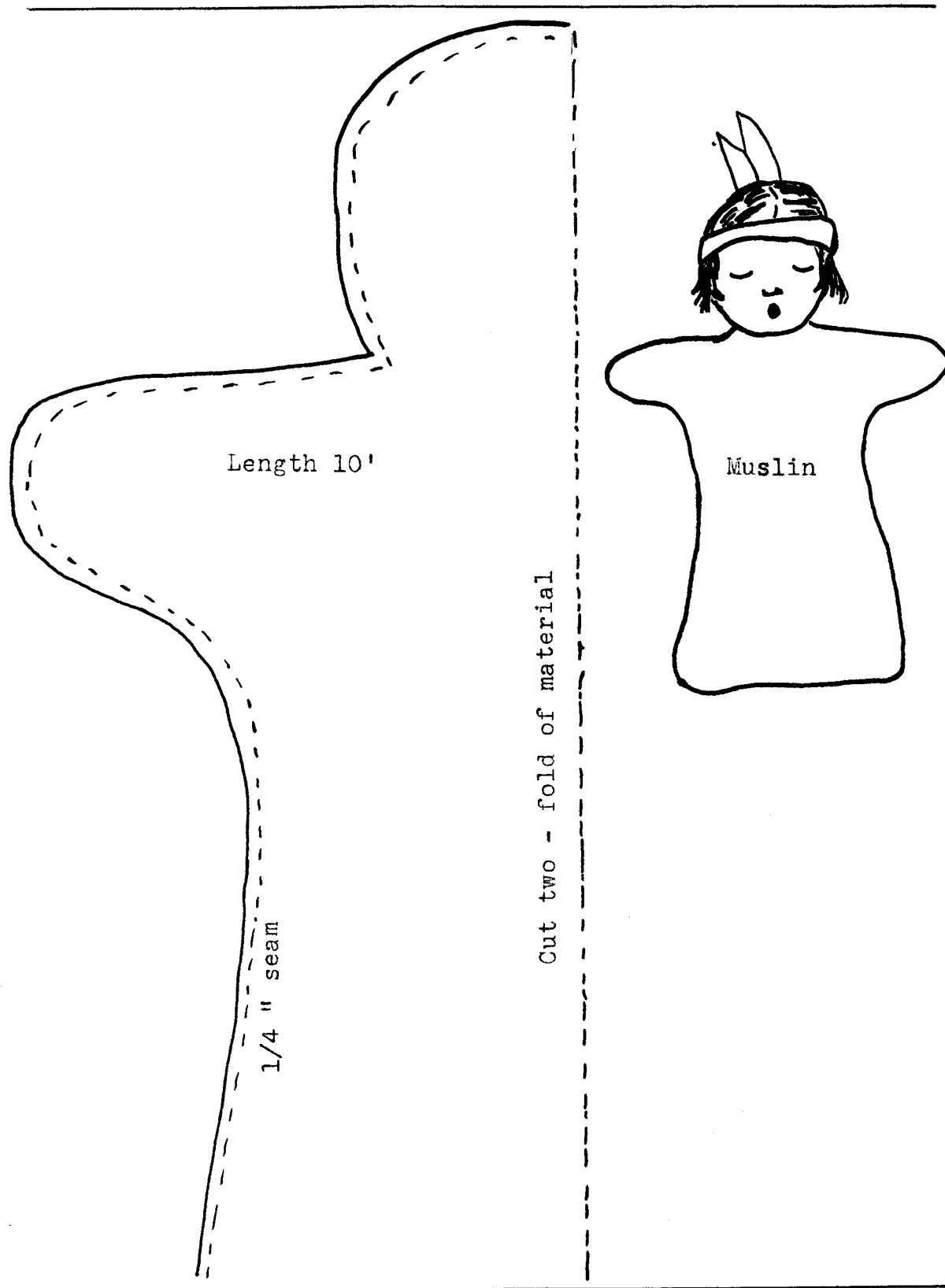


Fig.1.--Muslin hand puppet

various materials selected from a scrap box. Various shapes and textures of material may be pinned on temporarily until the right expression has been found. Children with no experience in drawing or modeling find they can thus make creditable characterizations.

Beginning with the third grade, turned heads may be used. They are similar to the improvised heads, but they offer a wider range of possibilities.¹⁰ The heads are turned on a lathe from soft wood off a block 3" by 3" or 4" by 4". The shapes should be varied as much as possible to suggest basic head forms. If the manual training department or carpenter shop will take the time to make a better looking puppet, the neck may be turned as part of the head. Noses and ears can be cut of wood and held in place by airplane cement and brads. Depressions for the eyes, or some flattening of the cheeks may give better characterization. The main problem is to give the head sufficient modeling, by the addition of features or by carving, to achieve variety from different angles.

There are many methods of making a simple string puppet, such as the small china doll dressed to suit its part and suspended by a single wire,¹¹ the bead dolls

¹⁰

Ibid., p. 80.

¹¹

Winifred Mills and Louise Dunn, op. cit., p. 58.

(wooden), or the paper bead doll, which is similar to those made around a knitting needle from wall paper,¹² only they are made larger and fatter and shaped to suit their purpose and joined with string, the heads, hands, and feet being modelled with "gesso" paste. These bead puppets are best controlled with a stiff wire, fastened to either the back or head and with one or two strings for the hands. It is not possible to make puppets of this type walk or make any very complicated movements, but they are a good beginning for small children who have not much skill in hand work or time to spend in securing dramatic results.

There are several simple ways of adapting wooden or peg dolls, such as the broom handle doll. (See Figure 4.) These dolls are jointed with screw eyes, the hands and feet are modeled on wire of papier-mache or "gesso."¹³

A tennis ball or a hollow rubber ball of about the same size makes the head for a string puppet fifteen inches high.¹⁴ A circular piece of tin three inches in diameter is used to shape the shoulders and makes a strong support for the rest of the body to hang from. (See Figure 2.) Card-board can be used but it tends to crack and is hard to shape.

¹² Waldo S. Lanchester, Hand Puppets and String Puppets, p. 20.

¹³ Ibid., p. 23.

¹⁴ Dana Saintsbury Green, Hours of Leisure, Puppet Making, pp. 12-23.

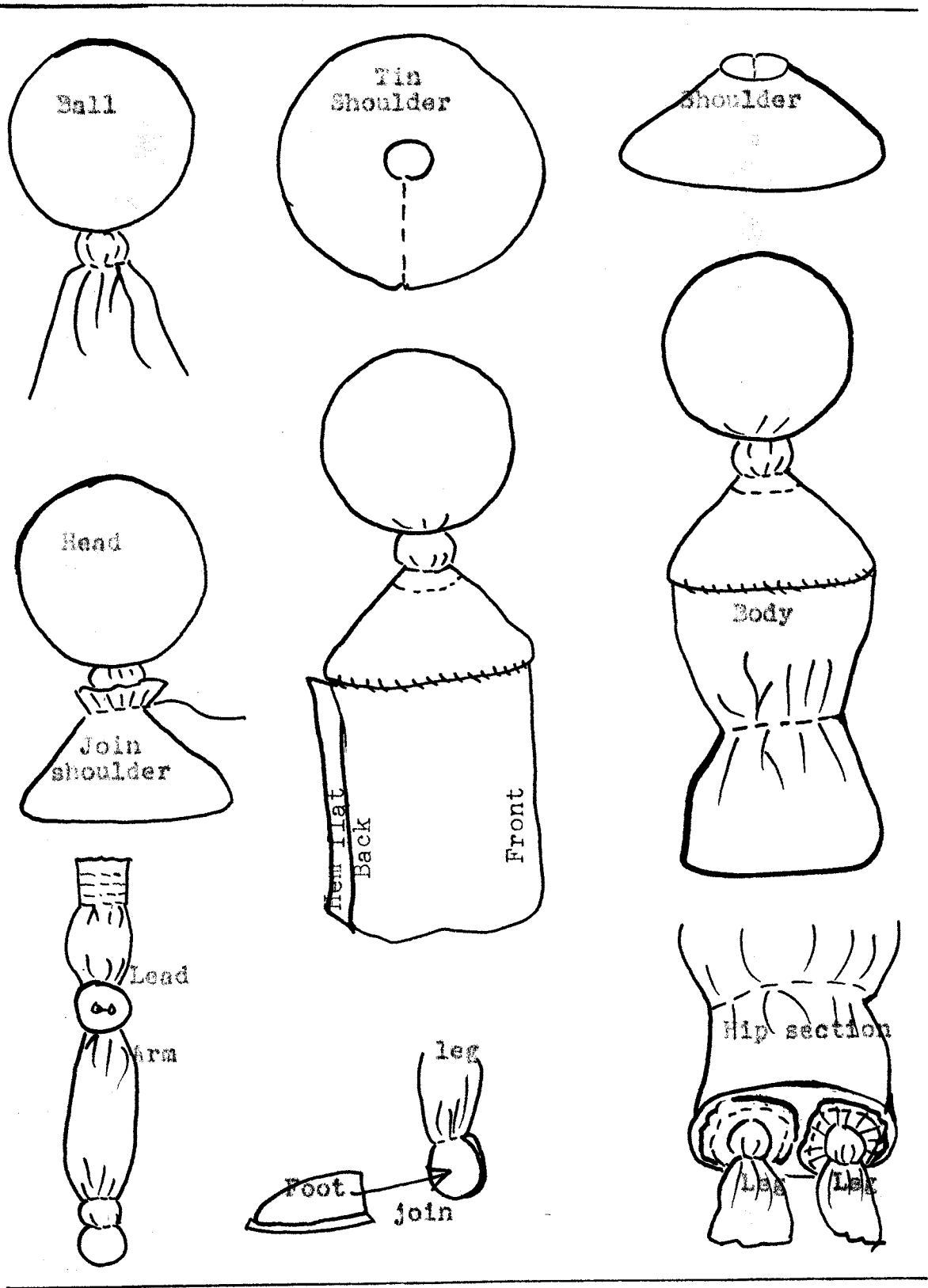


Fig.2.--Ball puppet

Absorbent cotton, stocking and weights comprise materials for the rest of the body. Hip portions of the body must be heavy. Weighted long arms and legs give the best movement; short ones are a great mistake. The ball for the head should be put in the toe of the stocking and tied at the base. Then, a ball of cotton or a wooden bead may be tied in place for the neck -- the stocking hanging below should be put through the one-half inch opening at the neck of the tin shoulder piece and brought under and over the tin and hemmed down. Next, a five-inch length of stocking should be sewed to the bottom of the shoulder and stuffed loosely with cotton. The waist should be tied in with a heavy thread and a circle of cardboard placed in the bottom of the hip section with lead weights glued to the cardboard. Then, a circle of stocking should be sewed over the opening under the cardboard. For the arms and legs, tubes of stocking are used. The leg should be tied at the ankle, knee and hip to give free movement. The arm should be tied at the wrist, elbow and shoulder. The foot is made from the finger of an old glove, with pasteboard for a sole and stuffed with cotton. The doll should be strung on a simple T-shaped control with strings attached to shoulder, head, hand, knee, and seat.

Dolls similar to the ones made of rubber balls may be

made from small cardboard cartons or large cork stoppers used in place of the ball.¹⁵

An inexpensive cloth marionette may be made by the pattern shown in Figure 13.¹⁶ With the exception of the neck, the muslin body is packed hard with cotton. The leg is stuffed as far as the knee, then sewed across to define the division. A half inch above this, a division is left without stuffing and sewed across again to make a limp knee joint. The leg is then stuffed almost to the top and stitched across, leaving a half inch of material free for a hip joint. The elbow and the shoulder joints are made in the same manner as the leg joints. A piece of lead wrapped in cloth and sewed to the lower part of the back helps the marionette hold a sitting position. Lead is needed in the hands and feet to give direction to the marionette's actions. The head is folded and gathered in at the top under the hair. Larger dolls may be made of cloth and cotton or smaller according to the character being used, but cotton dolls over fifteen to eighteen inches do not operate satisfactorily.

¹⁵
Ibid., pp. 33-40.

¹⁶
Edith Flack Ackley, How to Make Marionettes, pp. 3-10.

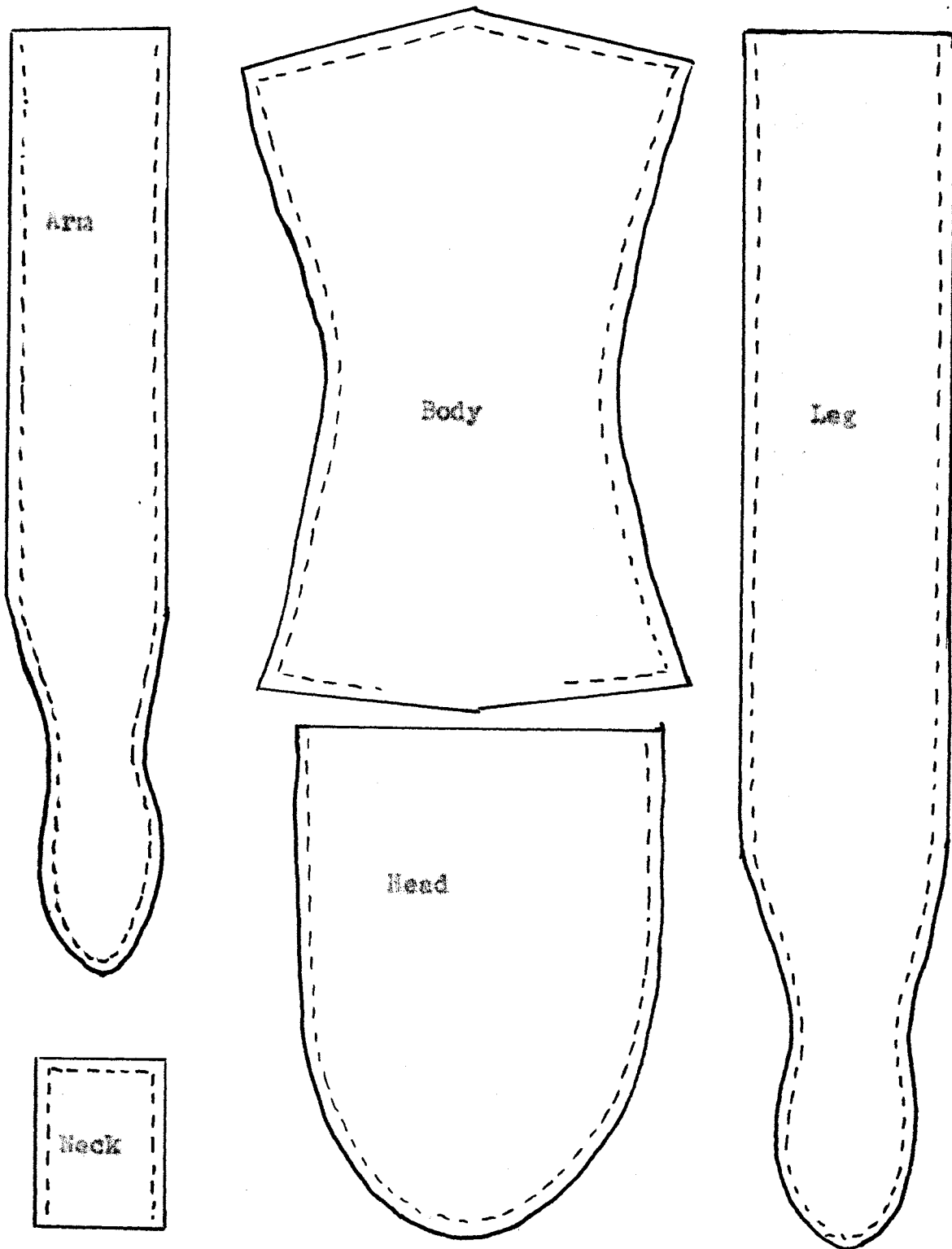


Fig. 3.--Cloth puppet

A variation of this muslin marionette may be made by the pattern shown in Figure 3,¹⁷ with cotton used as the main stuffing and sand-filled feet and hands for weight. If the doll needs to bend at the waist, the body can be seamed across as the leg and arm joints and a half inch left without stuffing. Use darning cotton or embroidery silk for the features.

A rag doll puppet is not usually effective in the hands of children below the fourth grade.

A good type of rag doll puppet can be reinforced by a wire skeleton twisted into shape with the help of a pair of pliers.¹⁸ This type of marionette, because of the wire frame, has more direction in movement than the simple cotton and muslin doll. The wire can be ordinary galvanized iron wire, about twenty gauge; this is suitable for figures up to twelve inches high. A good plan is to start by drawing the figure on paper the size and shape one wants the puppet to be, and then to bend the wires and lay them out on the drawing to check size and shape and the position of the loops. A little practice will enable the beginner to make a neat twist. For a twelve inch doll the wire frame should be cut in the following lengths: head, eight inches; top of

¹⁷ Helen Fling, How to Make Marionette Hands, Feet, Legs, Arms and Bodies, p. 40.

¹⁸ Waldo S. Lanchester, op. cit., pp.25-27.

body, ten inches; bottom of body, seven inches; top of legs, each five inches; lower legs and feet, each six inches; upper arms, each five inches; lower arms and hands, each seven inches. (See Figure 4.) This framework can be stuffed with wood, cork, cotton, wool or kapok and covered with muslin. The waist joint may be covered if no movement is needed, but all other joints are left uncovered in the muslin sewing. The feet and hands need to be weighted in any case and can be made of cloth or molded with "gesso." If the muslin cheeks are dampened, the muslin will stretch with the finger and then can be rounded out with more cotton.

Molded Heads

In the adventure with marionettes probably nothing will give children more pleasure than the actual making of them. Most people begin their puppets with the heads. Allow several days for the operation, since it takes time for the drying of casts, papier-mache, and the like. In the meantime you can begin on the body, hands and feet.

Puppet heads are larger, relatively, than the head in the human figure. While the human figure is about seven and a half heads high, in puppets the distance from the top of the head to the base of the chin should measure about one seventh of the height of the figure. The larger head gives better visibility and is easier to operate.

Broom handle doll

Wire doll

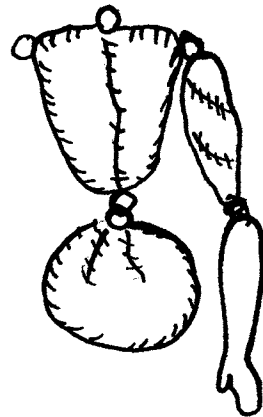
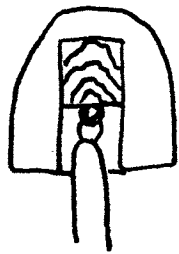
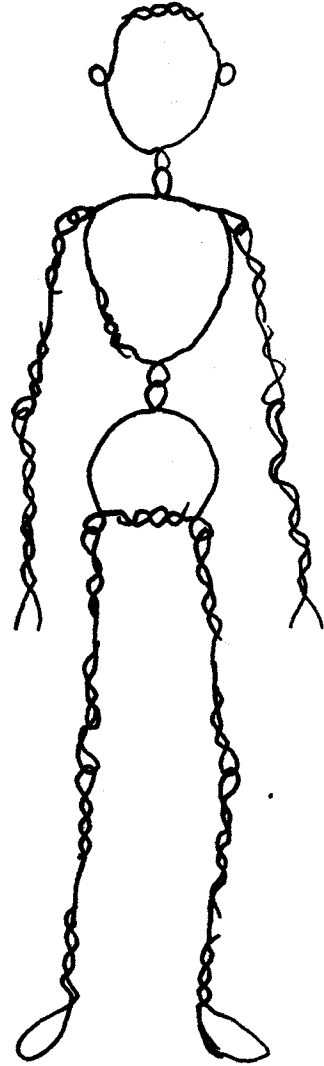
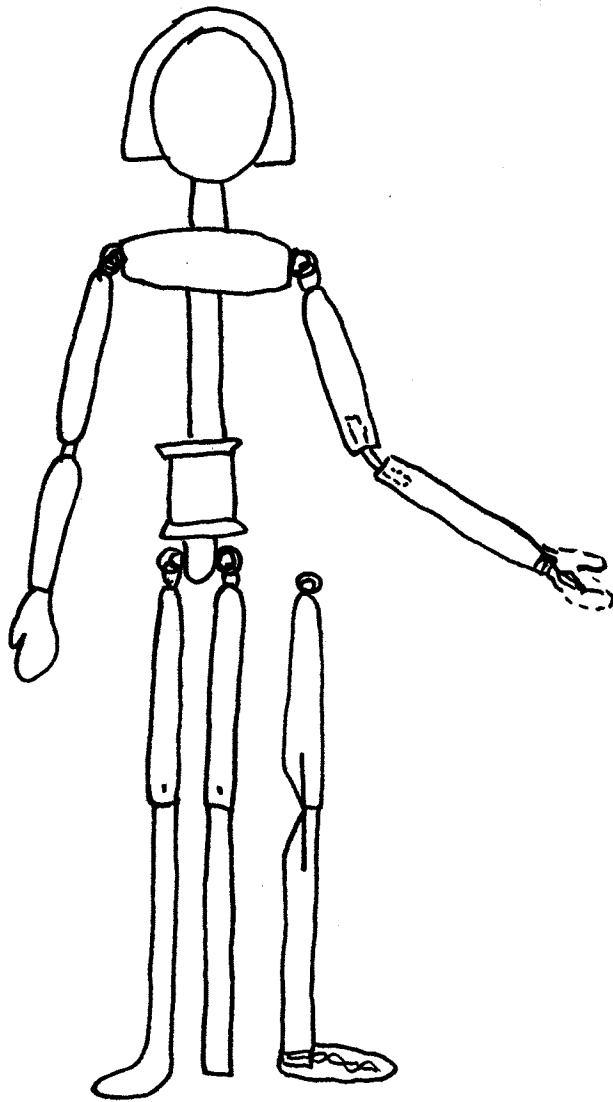


Fig. 4.--Simple marionettes

Mixtures such as papier-mache, sawdust and asbestos have been found suitable for direct modeling.

Sawdust mixture.--It is better to use a core in the center of sawdust heads.¹⁹ A wad of paper or rags wrapped securely with thread to a one-inch dowel or a small piece of soft wood can be used for marionette or rod puppet heads. Loops of wire for attaching the head strings of marionettes should be set in the core. For hand puppets a hollow cloth-covered cardboard cylinder with a roll of cloth sewed to the base for fastening the costume should be used.

On this core you can build up the basic head form, using coarse sawdust (from a bench saw) mixed to modeling consistency with flour paste or other adhesive. String or thread wound into the mixture as you build the head helps to strengthen it. After drying for twenty-four hours, the final modeling can be done with a finer sawdust mixture (the dust from a hand saw is good). When the head is dry, sand, fill in the cracks with old English water putty or sawdust mixture. Some whiting can be added to the mixture to make it smoother, or one or more layers of soft paper strips dipped in paste may be put on to make a smooth surface. A paint brush is useful for working the paper on to the head. This is a durable, economical head that can

¹⁹ Marjorie Batchelder, op. cit., p. 84.

be made by large groups of children. This type of head is not so attractive in appearance as are more expensive types.

Asbestos mixture.--Flaked or powdered asbestos, obtainable at hardware stores, can be mixed with an adhesive in the same way as sawdust or paper pulp.²⁰ Whiting should be added and a little formaldehyde. The process of modeling is the same as described above.

The principal difficulty with all these mixtures is the length of time required to dry them thoroughly. If cores are prepared and dried in advance, the drying time is shortened; but even so, perhaps a week must be allowed. Drying can be hastened by artificial heat, but cracks are more likely to occur. Here the quick drying, easily mixed water putty is useful; it comes in powder form and is mixed with water as needed.

Papier-mache.--Papier-mache can be built directly on a dowel rod which has a core of paper wadded to it to hold the wet mixture.²¹ The cores can be made in advance of the same pulp and allowed to dry. A cloth-covered cardboard tube may also be used. New pulp can be added to the basic form and the features modeled with the fingers, sculptor's

20

Ibid., p. 85.

21

Sue Hastings, Dorcas Ruthenburg, How to Produce Puppet Plays, pp. 43-44.

tools or those improvised from buttons, orange sticks, toothbrush handles or dowels sharpened to a point are useful. Papier-mache can also be pressed into a well-oiled plaster mold and allowed to dry. An old electric light bulb makes a useful base for papier-mache and a good neck can be built on the head.²² When the pulp is dry, the bulb is broken and you have a hollow, light-weight head. When thoroughly dry, papier-mache can be sanded and painted with tempera, oil or water colors. If tempera or water colors are used, add a couple of tablespoons of a fixative made from flake glue dissolved in water.

Overlapping strips of torn paper napkins, newsprint, toweling, tissue paper, or other soft paper, well-covered on both sides with flour paste, make a light, desirable head.²³ These strips may be pressed into a well-greased plaster mold to a depth of six or eight layers, alternating the color of the overlapping strips so as to be careful that each layer covers the entire area. Let each layer extend slightly beyond the edge of each half of the mold for trimming and smoothing later. Press well into the mold and allow to dry thoroughly.

²² Marjorie Batchelder, op. cit., p. 84.

²³ Winifred H. Mills and Louise M. Dunn, op. cit., p.67.

In placing the two halves together, there are two methods, one resulting in a solid head, and the other resulting in a hollow head.²⁴ In the case of the solid head, each half is filled with a mixture of cork dust and glue, or sawdust and glue, or strips of thin canvas built up gradually in thin layers over the lining and allowed to dry between applications. Cork is easily powdered by working it with a wood rasp or a file. A very fine dust is not necessary. Quite thick lumps can be used after the lining has been applied, but care should be taken not to put too much in at a time. Wadding can be used with glue instead of cork, but this requires longer to dry, and thinner coats must be applied. When the two halves have been gradually filled with a filling, the edges are smoothed and trimmed before glueing the two halves together. A wire with loops at either end for the head strings is placed in the seam just above the ears and between the two halves entirely through the head before the two halves are joined. The joint is covered by two or more layers of tissue paper and glue to strengthen the seam of the papier-mache shells.

Ears may be modeled on after the head is dry, but usually are not necessary as hair may cover them. If any defects are noticed, they can be fixed up with more papier-mache and built up to sufficient hardness and thickness.

²⁴ C. and L. Higginbotham, Puppets for Pleasure and Profit, p. 9.

If the head was not filled with a glue mixture the thickness of the layers of tissue paper may be tested by holding the paper up to the light.

For a solid head the bottom part of the neck is built up and rounded at the end with papier-mache. After the head has thoroughly hardened, a small screw eye dipped in glue is put in the end of the neck for attaching to the body. If a hollow head is desired, the process is somewhat different. Secure a spool of such size that it is small enough for the middle part to fit snugly into the neck, but large enough that the ends will not pass through the inside of the neck after the two halves are fastened together. Whittle one end of the spool down until it is blunt and well-rounded. Run a strong, but small, wire through the spool, from the rounded end to the large end; thread it through a button; pass it back through the spool, from the large end to the rounded end, and pull all the slack out of it. This wire is for attaching the head to the body. Place the spool in the curve of the neck well covered with glue, with the wire extending away from the head; place the other shell on top of the first and paste the two halves together, using several layers of thin paper as in the former process. Also paste several layers of paper over the lower part of the neck and the rounded

end of the spool so that any roughness in the joining of neck and spool is eliminated. Then allow the complete head to dry thoroughly. A wood core made of a rounded dowel stick with a screw eye in the end is a practical method of fastening the neck to the body, also.

If only one head is to be made, the strips of glue-covered tissue can be put onto a well greased plasticine head, and the papier-mache process is carried out as in the case of the molds, except that now each successive layer of paper will be built "out" instead of "in."²⁵ Smooth the layers onto the model, varying the direction of the strips. Strong modeling is especially important for papier-mache over clay because some of the detail is lost. With the plasticine model, however, the model remains soft enough for detail to be built up again after each layer of paper is added. This can be done with modeling tools, an orange stick, a hair pin, a large button, the broad end of a tooth pick, or a match. After the last layer is on, massage the head thoroughly with thick paste until all seams and creases disappear. When the head is dry, the clay can be dug out through the neck hole, or through a cut in the back of the head made with a razor. The piece can be replaced later with strips of paper. Small bits of clay can

²⁵Marjorie Batchelder, op. cit., p. 86.

be removed by daubing with a larger piece. The head can be cut out in half with a razor blade, beginning at the neck on one side, extending up through the ear, across the top of the head and down the opposite side. Each half can be slipped from the model and put together as before discussed.

Plasticine.--While one's first concern should be to make a puppet that is workable, there is no reason for the child to deny himself even in the first attempt, the fun of fantasy or the creative ability, if the character calls for it. Humor and emphasis, even to the point of exaggeration, are more to be sought than realism as a rule. A beak, a turnip nose or a snout may characterize the puppet. Eyes five times the size of the mouth, jutting forehead, bristling eyebrows -- all can be used to point up the dominant traits of the personality. Even straight portraits such as boy, girl, woman, man should be slightly caricatured if they are to carry the puppet feel. The identity of the characters and their moral codes are largely built up by facial features and added to by costuming.

Plasticine or any composition of modeling wax is better than clay for puppet heads because it is very responsive to the fingers; it is easy to cast and more economical, since wax may be used over and over again after the cast or shell has been made.²⁶ The modeling presents one serious

²⁶ Ibid., p. 85.

difficulty: that of keeping the moulding material in a position convenient for work. To avoid this difficulty, one of the following methods may be used:

Sharpen one end of a yardstick to a slightly blunt point. Thrust the pointed end into about a pound of plasticine (one pound is sufficient for a four- to six-inch head), so that the stick lacks but one inch of going entirely through the mass. Work seated in a low chair with the yardstick resting on the floor and grasped tightly between the knees.²⁷

A simple modeling stand can be made of a three-fourths inch to one and one-half inch dowel, set in a heavy wooden base. If the stand can be made to revolve, so much the better.²⁸

The mass of plasticine should be egg-shaped and set at an angle on the armature.²⁹ Use the fingers as modeling tools as far as possible -- they are more sensitive and will improve with practice. For finishing the small areas, orange sticks, toothpicks, hair pins, buttons and other small tools will serve. Keep turning the head around to consider it from every angle. About the middle of the head,

27

C. and L. Higginbotham, op. cit., p. 6.

28

Helen Fling, How to Make, Mould, Cast, Paint Puppet and Marionette Heads, p. 1.

29

Sue Hastings, Dorcas Ruthenburg, How to Produce Puppet Plays, p. 4.

top to chin, press the fingers into the clay on either side of the center to make the eye sockets; roll a small egg-shaped mass the length of the eye and cut it in four pieces lengthwise. Set one piece into each socket for the eyelid and smooth into place with a wire hook (a hair pin will do). This will suggest the eye and give a more illusive expression than a completely modeled eye with pupil and iris defined. Build up the nose and remember the mouth is a built-up area, not just a line in the face. Lips can be made by rolling bits of clay into snake forms and smoothing them into the head. Model the ears simply, and in modeling the hair, suggest only the main masses -- do not waste time scratching lines to represent hair. Plasticine is a flexible medium and one may be tempted to put in many details. Do not do this. Work for strong modeling which will give a suggestion of life rather than for intricate lines which will have no carrying power. In making the model of the head, the neck should be included and should be extended longer than the correct proportions ordinarily indicate. When the head is modeled satisfactorily, cover it with a coat of vaseline, liquid soap, or better still a coat of melted paraffin.

After the model is completed, there are two methods to choose from: that of making a permanent mold, and that of building up one head from each model. The method used depends upon whether duplicate heads are desired. If

duplicate heads are to be used ~~for~~ tandem or chorus, a permanent mold must be made from one of the several good methods.

Plaster moulds.--The plaster is mixed in about the same proportion for all types of plaster molds. Secure a good quality of plaster, using approximately two parts of plaster to one part of water; the proportion of three parts of plaster to one part of water is used if a stiffer mixture is desired.³⁰ Put the water in a deep, smooth vessel. Add plaster as fast as it can be sifted, until it comes up level with the surface of the water. Let the mixture stand a few moments; then stir with a spoon until it is as smooth and thick as heavy cream. Care must be taken not to let air bubbles form. The clay model should be in readiness before the plaster is mixed because it sets quickly, once it begins to stiffen.

Usually a pint of plaster of Paris mixture is enough to make one head unless it is very large. Use a cardboard box about four inches wide, six inches long and four inches high as a molding frame.³¹ Draw a line around the head with a stick to divide the front half from the back and place gently in the box so as not to disturb or mar the shape. The

³⁰ Virginia Murphy, Puppetry an Educational Adventure, p. 9.

³¹ Helen Fling, op. cit., p.8.

face should be up. Pour plaster into the box until the head is submerged to the guide-line around the head. Leave undisturbed until the mixture hardens. Put vaseline coated marbles half submerged in each corner to become register locks. After coating the surface of the hardened plaster with vaseline, liquid soap, or oil, fill the rest of the box with more plaster of Paris mixture. If the nose protrudes, pile extra mixture to cover completely with about a half inch to spare. When all is set hard, tear off the outside box. The cast will heat in the process; but when cool, it is set. Gently tap and pry open with a chisel or a kitchen knife, placing small damp pieces of cardboard used as a wedge. Remove plasticine and save it to be used for later heads. Shellac the inside of the cast to preserve it. When dry, coat with a thin layer of vaseline, liquid soap or oil. (See Figure 5.)

Have ready a modeled head in plasticine with a heavy thread pressed all around the model, leaving the two ends of the thread exposed and free on the dowel stick.³² Dip the model carefully into the mixture so that all parts of the model are covered without disturbing the head. Blow on the head to distribute the mixture into all the crevices and to prevent bubbles and air holes from forming. Repeat this process.

³²
Ibid., p. 8.

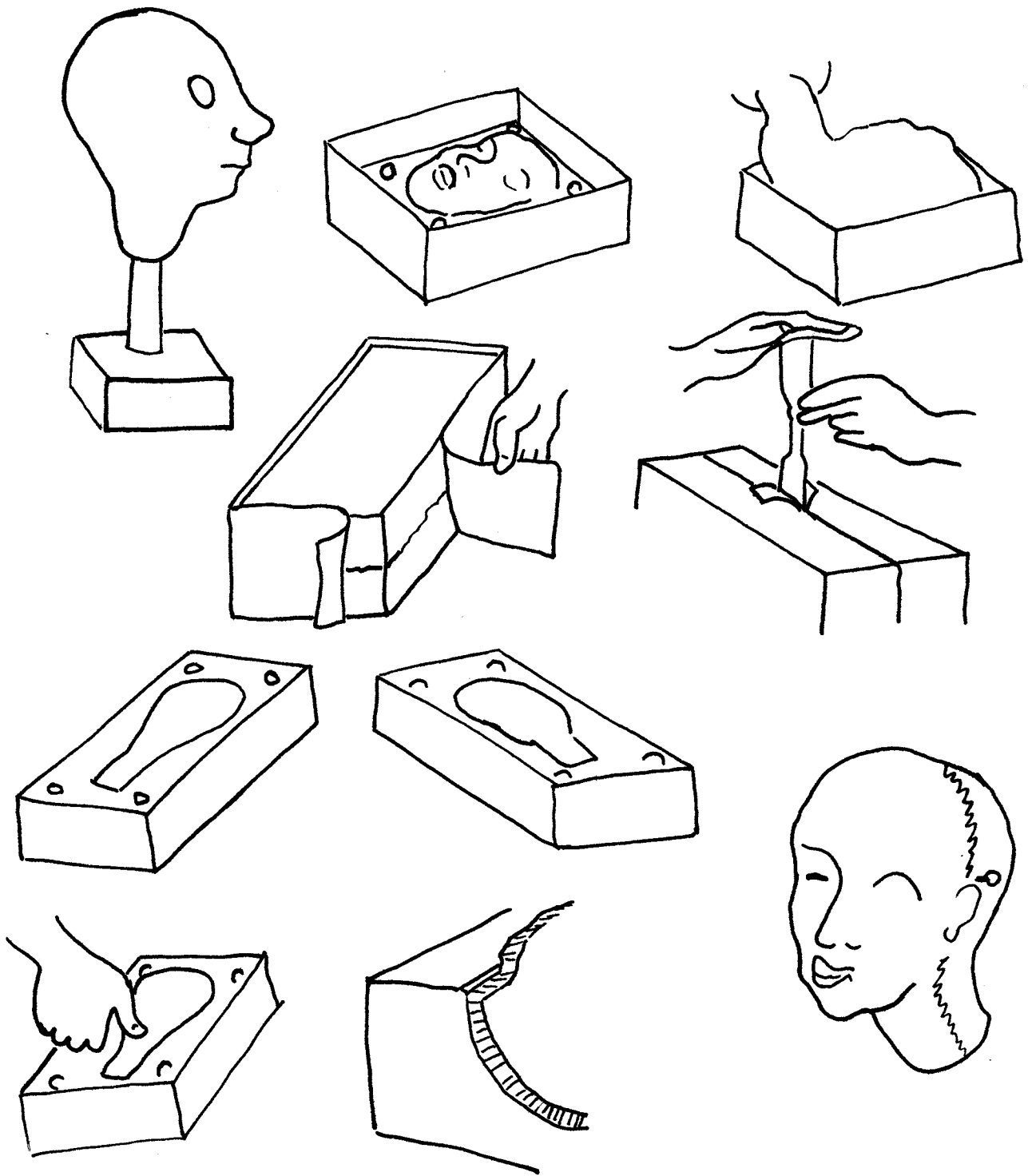


Fig. 5.—Plaster moulds

As soon as the mixture is a little thicker, begin to pile the plaster over the model until the covering is two or three inches over all. When the cast has become firm, but before completely hardened, grasp both ends of the thread and pull upwards carefully, weaving slightly from side to side in pulling so that the mold pieces will dovetail when tied together. This will cut the cast and divide it into halves, then it is ready for the papier-mache or the plastic wood process. (See Figure 6).

Pieces of shim metal, sheet aluminum, or thin tin, cut in one and one-half inch to two-inch squares can be used to divide the mold into halves or into three sections.³³ Care should be taken to avoid undercuts, spaces back of ears, nostrils, and other places which the plaster might fill and thus prevent the mold from pulling properly and cause the plastic wood or papier-mache to break when removing from the cast. If undercuts are necessary to depict the character, then the head will need to be divided into three sections. Cut up playing cards can be used if metal is not available, but they are less satisfactory. The dividers are inserted along one side of the neck, up over the top of the head and down on the other side of the neck. Other pieces of tin are

33

Sue Hastings and Dorcas Ruthenburg, op. cit., p. 38.

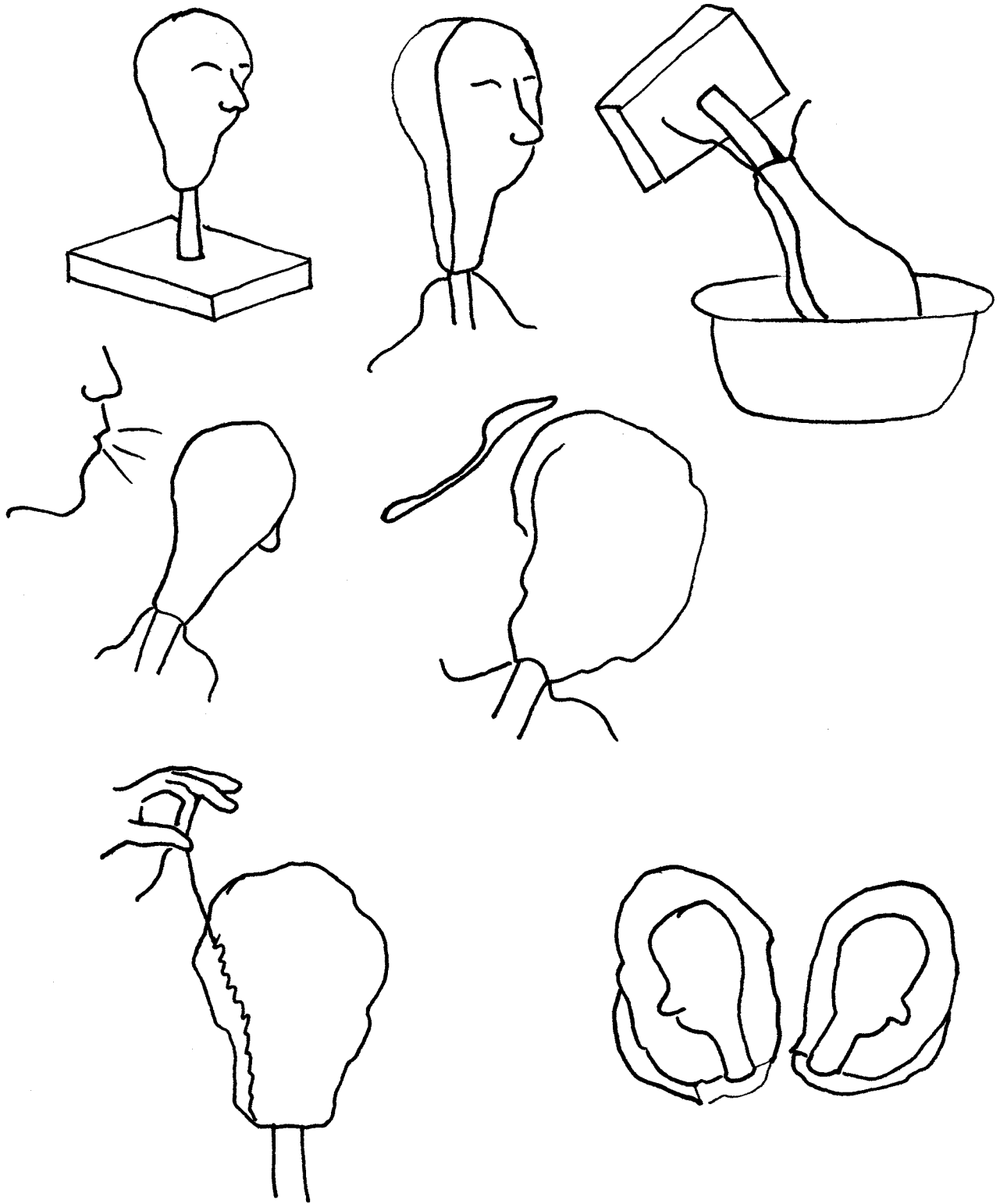


Fig. 6.--Plaster moulds

used to divide the front of the face along the line of the nose. Mix enough plaster for the back of the mold, and when it has just begun to set, apply with a spoon, building it up about one inch in thickness. When it has set, remove the dividers which separate back from front, make some holes with a knife to lock the mold and grease the plaster with vaseline, liquid soap or hard oil. It is a good idea to grease the dividers which separate the sections. Cast one half of the face, remove the dividers, make holes in the plaster and grease the mold before casting the last section. Pry the front sections carefully from the back with a kitchen knife. Any rough places inside the mold can be smoothed and any air bubbles filled with a thin plaster of Paris mixture. It is sometimes easier to fasten the two front sections of this mold together before pressing in plastic wood or papier-mache. This can be done by setting the halves in a mound of plasticine so they do not have to be supported by the hand. Soak the cast for five minutes in water immediately before using as a mold. (See Figure 7).

Plastic wood.--With the use of molds, heads may be made with plastic wood. Heads made in this way are substantial and extremely light.³⁴ Keep the hands dripping wet

³⁴ Virginia Murphy, An Educational Adventure, p. 9.

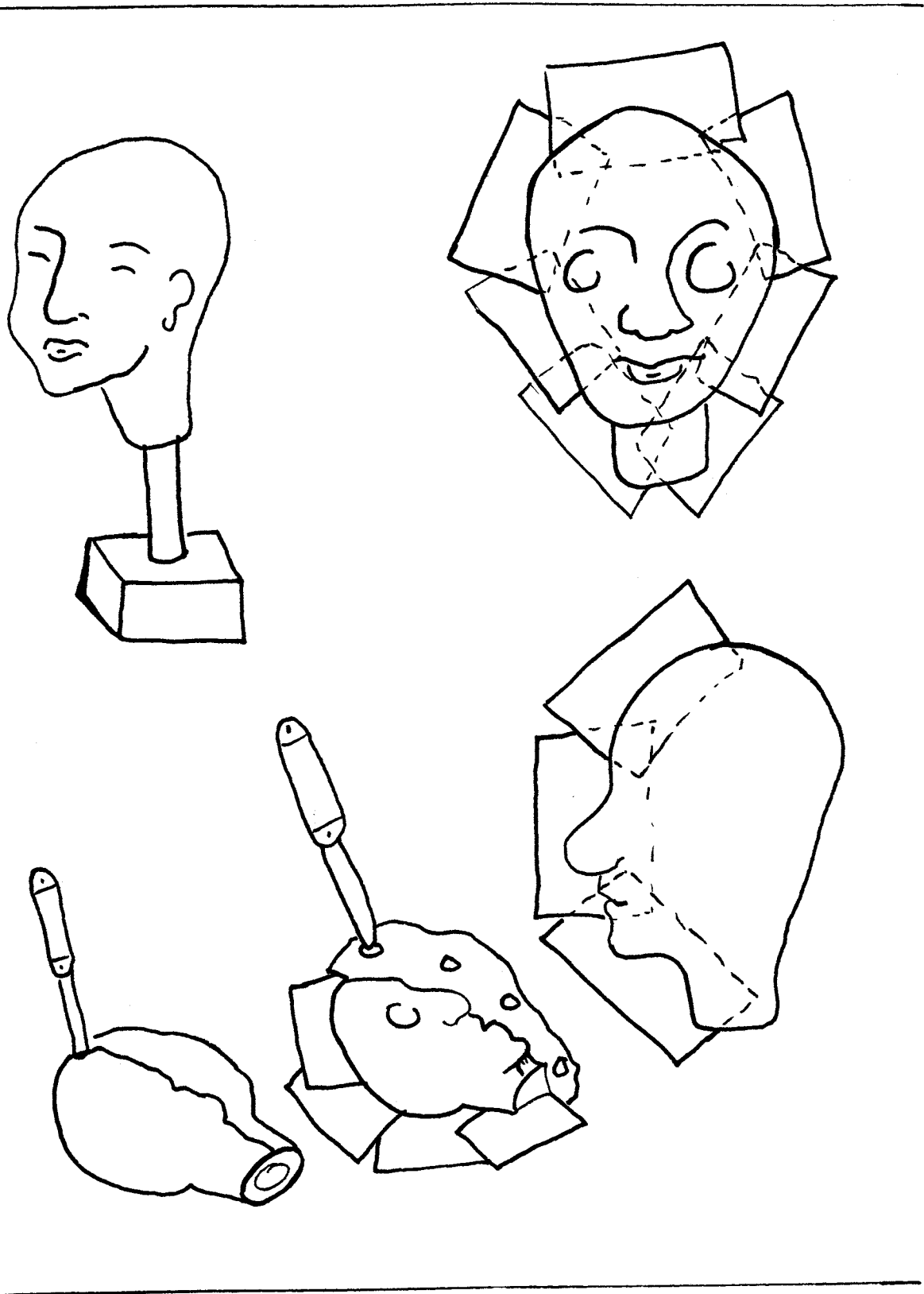


Fig. 7.--Plaster moulds

while working with plastic wood to minimize the sticking. Use the thumbs to press plastic wood firmly into the cast so as to fill every crevice and wrinkle, first molding a plastic wood pancake. Allow a little plastic wood to be built above the top surface of the cast to afford joining seams. Tie the sections of the cast together and soak over night in water to prevent shrinkage of the plastic wood. Gently pull the head out and cover the seam on the outside with a slight bit of plastic wood, and working through the hole at the base of the neck or a circular hole cut in the top of the head, knit fresh pulp into the division of the seams on the inside. The blunt end of a case knife or a rounded stick can be used to press the plastic wood, if the finger cannot reach far enough. The neck should be made solid with plastic wood if the head is to be used with marionettes or rod puppets; for hand puppets an opening to fit the forefinger of the puppeteer's hand should be left. When filling in the neck, a wire is placed well up in the head through the core of the neck for fastening the head to the body. If a screw eye is used it must be dipped in glue as plastic wood does not hold screw eyes well. Before placing the two halves of the plastic wood head together it is well to put the looped wire through the head for the head strings.

Speed is important in working with plastic wood because

it dries quickly when exposed to the air.³⁵ A good quantity of solvent should be kept on hand for moistening places which get too hard to work. When thoroughly dry, the head may be carved or retouched with bits of plastic wood mixed with solvent. Old heads may be remodeled by working new features over old ones. A paint brush dipped in solvent is useful for smoothing the heads, although sandpaper may be used. Any kind of paint can be used on plastic wood. It usually takes a plastic wood head about forty-eight hours to dry.

Carved heads.--Perhaps the ideal head, and surely the most difficult to make, is that carved from a solid block of wood.³⁶ For most purposes this is the best medium as it will stand a great deal of knocking about and the weight is satisfactory. It is not perfect, however, for very small marionettes six inches or less, except as a ground work from which to build up, owing to the difficulty of carving on such a small scale; neither is it suitable for puppets over twenty-one inches, unless the head is hollowed out, as the weight makes manipulation tiring. Another recommendation for the carved head is that it requires only one operation -- no

³⁵ Marjorie Batchelder, op. cit., p. 93.

³⁶ Jan Russell and Ann Hogarth, Marionettes, p. 32.

mold or cast. Carved heads are also excellent for use in large classes. A considerable number of students can work in a small space on separate heads at the same time.

Suitable woods for carving heads are: poplar, basswood, balsa, white sugar pine.³⁷ Hand-puppet heads should be as light as possible; even the lightest of pine would be too heavy for elementary children if the head is large. Balsa is the lightest available wood. It must be carved with a very sharp thin knife such as a razor blade. Sugar pine is one of the best soft woods for carved puppet heads and is easily obtained.

Tools required will be a knife, coping saw, vise, rasps; and whittling sets, though not essential, are a help.

Cubes of wood three or four inches are large enough for most heads; use a block an inch or so longer if the neck is to be carved with the head.³⁸ It is important to be sure the grain of the block of wood runs lengthwise to the head. Sketch the profile on one side, and the front view on the side next to it. After fastening the block firmly in a vise, saw out the profile with a coping saw. Start carving with the nose, the highest point on the face. Wood rasps and larger carving tools will be useful in this roughing

³⁷ Marjorie Batchelder, op. cit., p. 93.

³⁸ David Frederick Milligan, Fist Puppetry, pp.25-33.

out stage. Use any method which is easiest and gets the best results. Go slowly and try to keep the forms round. The carved head differs from the modeled type in that there is no chance to correct mistakes -- all cutting is direct and final. Although the wood head is a most desirable type, it is most certainly a difficult medium and strictly for upper grades that have had previous acquaintance with puppets.

Painting.--For painting the heads of any type discussed in this study, two brushes are needed -- a liner and a stippler.³⁹ After the head is finished, give it several thin coats of "gesso" for smoothness and hardness, and a preliminary coat of water color, tempera or oil paint as a foundation complexion. Shade of complexion coat will be determined by the character -- white, black, brown, or yellow. Oil colors are best, but it is necessary to dull the finished head by very fine sandpapering. Water colors or tempera may also be used but should be mixed with a few drops of dissolved flake glue as a fixative or should have a thin coat of satin-finish varnish, shellac or lacquer over the paint for protection. The dull-finish varnish is best; other materials are likely to be too shiny unless given a coat of wax or rubbed down with pumice powder. Tempera is the most economical and practical by far for the elementary

³⁹Ibid., pp.33-34.

school child. Oil is more durable and satisfactory for the seasoned puppeteer of upper grades. Colors most frequently needed are: white, black, scarlet, vermilion, new blue, chrome yellow, light viridian green and burnt sienna.⁴⁰

Avoid heavy enamels which reflect the light unnaturally unless such effects are desired for a special purpose.⁴¹

Tiny lines and subtle graduations of value will not carry from the stage to the spectator -- paint boldly, with eyes and eye-balls underlined and wrinkles emphasized with thin lines.⁴² Wooden heads, made of fine grained sugar pine and smoothly sanded, may be left unpainted except for details. Cake rouge rubbed into the wood is an easy way to get cheek color. The head should be given a thin coat of varnish to protect it. French chalk mixed with oil colors will cut down the shine.

If you are stylizing the puppets, the painting of flesh tones need not adhere too closely to those of nature -- they can be chosen to blend with the costume and setting. If you prefer to be more realistic, variations can be made to suggest different ages and nationalities. Avoid the sickly pink

40

Sue Hastings, op. cit., p. 46.

41

Marjorie Batchelder, op. cit., p. 95.

42

Virginia Murphy, An Educational Adventure, p. 9.

made of red and white. All flesh color is basically orange -- white, orange, a tiny speck of burnt sienna, with a little blue to gray it, for white people; orange with more blue makes brown for Negroes, and oranges with touches of red and white, for Indians. The yellow races are best done with yellow ochre darkened or lightened with black or white. Any color can be made grayer by adding a touch of its opposite; it is better to err on the side of vividness.

When the painting is dry, shellac the eyes and lips to liven up the expression of the face.⁴³ Eyelash effect can be had with carefully painted lines, with silk glued on the lid or with wool or fur strips. Eyelashes made of bias-cut buckram, glued on and then painted are the most satisfactory. Eyebrows, made of any of the several materials used for hair, are painted or glued on.

Wig making.--Hair for puppets may be made in many ways, but Efimova warns against human hair as being the poorest of all.⁴⁴ Possibilities are: crepe hair, dyed Turkish towel (for short Negro hair), frayed rope, sponge rubber, embroidery floss, wool yarn, upholstery fringe, fur, steel wool, dish mops, felt, leather, oilcloth, and copper pot cleaners.⁴⁵ Most wigs can be glued or tacked directly to

⁴³

Bessie A. Flicklen, A Handbook of Fist Puppets, p.47.

⁴⁴

Nina Efimova, Adventures of a Russian Puppet Theatre, p.86.

⁴⁵ Helen Haiman Joseph, A Book of Marionettes, p.223.

the puppet's head, but one can always glue the toe of a stocking to the head for a foundation, and sew on the hair. Sometimes it is convenient to sew the hair to a narrow strip of felt which is fastened to the head. If the hair is molded on the head, oil paints or tempera are used for coloring the same as for the face.

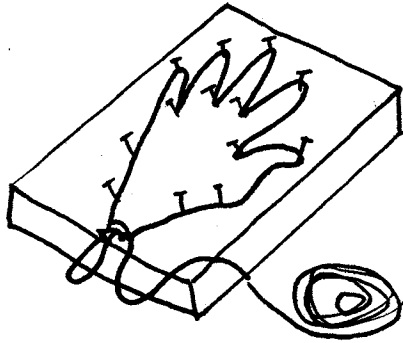
Wooden Bodies

There are almost as many types of bodies for marionettes as there are kinds of heads. Some of them are very simple, and others are very complex. For the beginner, a compromise between these two is desirable, as the actions of the simpler ones are limited and the manipulation of the more difficult ones are rather complicated. The ideal body is made of wood.

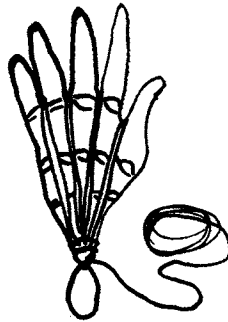
Hands.-- A pliable hand that can be shaped into various positions such as, fist, pointing, open and holding various articles is a hand made of wire, wax and tape.⁴⁶ Cut a block of wood about three by four inches for an armature and outline in pencil the drawing of a hand. A hand is usually the length of the face of the doll from the hair line to the bottom of the chin. Drive one-inch pin nails around the drawing as the dots indicate in Figure 8. Use a pliable wire, number sixteen copper wire is best, and place around the nails, weaving and fastening with pliers to form the foundation (or bones) of a hand. Slip this form carefully off

⁴⁶

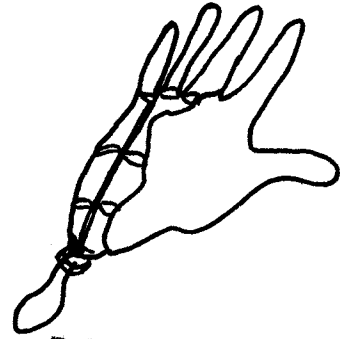
Helen Fling, op. cit., p. 1-5.



Armature



Wire



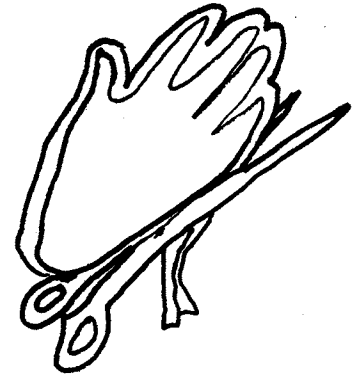
Beeswax



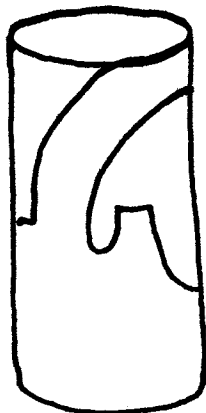
Tape covered



Muslin



Chamois



Carved dowel stick hand



Fig. 8.—Hands

the nails and make another one. Turn it over and you have a right and a left hand. Shape and tighten with pliers, making the finger ends narrower than the base of the fingers. If larger or smaller hands are wanted, make a larger or smaller armature. Cut small pieces of bees wax and soften by kneading it with the fingers; the warmth of the hand will soften the wax, and fill the wire form. Begin to place small pieces of wax over the wire, covering and shaping fingers, thumb, palm and wrist. Leave a wire loop free at the wrist without covering with wax. Model the hand to suit the character you have chosen. Wrap this wax-covered hand in a diagonal direction with silk binding tape, and with a needle and thread catch the loose parts and edges and make a firm covering through which the wax cannot escape when the fingers are bent.

Instead of using tape to wrap the hand, papier-mache may be used to cover the bees wax after the hand has been shaped in the correct position.⁴⁷ Use torn pieces of paper. A small orange stick will help in shaping and smoothing and defining wrinkles, veins, knuckles, and nails. Allow to dry before painting. When the papier-mache is dry, the position of this hand can never be changed as the tape-bound hand. Hands are

47

Helen Fling, op. cit., p. 6.

painted with oils, tempera, or water colors.

A glove-type hand can be made of a folded piece of strong muslin stuffed tightly with cotton.⁴⁸ Draw a pattern of a hand and cut two, being careful to allow one-fourth inch for seams. Sew, turn and insert cotton and a small piece of lead for weight. Be sure there is a right and a left hand. Quilt between the fingers. These hands may be sewed directly onto cloth arms, or glued and tacked onto the wooden ones. (See Figure 8 on page 56.)

A hand of chamois skin may be made on a form of wire by the method used for the wax hand.⁴⁹ Fill the wire form with bees wax and cover with rubber cement. Have ready a right and left hand of chamois, cut slightly larger than the shape of the hand desired and press into place, bringing the edges together. Cut around the edges of the fingers and the rest of the hand with a pair of scissors. This closes and usually sticks the edges of the chamois together. If any imperfections or gaps appear, a few stitches will repair the break. Both cloth and chamois skin are painted with oil or tempera to match the face. (Figure 8).

A wooden hand may be cut from a one and one-half inch dowel.⁵⁰ On a four-inch length of dowel draw the lines

⁴⁸ Ibid., p. 6.

⁴⁹ Ibid., p. 7.

⁵⁰ Ibid., p. 11.

that are indicated in Figure 3. Place in a vise and saw and wood rasp to the shape indicated. Round off with a rasp and shape fingers and wrist before sandpapering smooth. Wrists are fastened to the arms with chamois, leather, or cloth so as not to obstruct movement.

Another wooden hand may be made from a block of wood six inches long, two inches wide and one half of an inch thick.⁵¹ Draw a pattern of a right and left hand the same size, the wrists meeting in the center of the six-inch length. Place the hands in a vise and saw and round the edges, sandpaper, paint and fasten to a wooden arm with screw eyes.

Feet.--Wooden feet made of soft wood hold their shape and stand a great deal of knocking about.⁵² Basswood, if it can be obtained, is exceptionally easy to work with. Small blocks of soft pine may be obtained in mill-end pieces from the lumber yards. For a twenty-four inch puppet a block of wood two inches by three and one-half inch will carve an exaggerated foot. Draw the shape on the block and saw and whittle until it is of correct proportions. Cut a slot in the back part of the foot and insert a piece of

⁵¹
Ibid., p. 13.

⁵²
Sue Hastings, op.cit., p. 56.

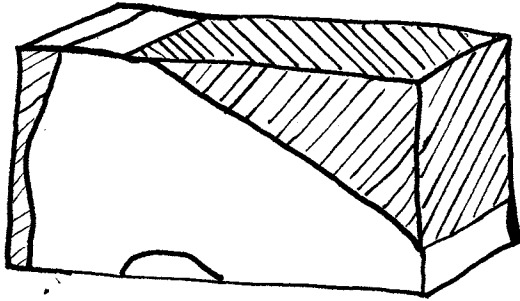
trunk fibre to fit the slot. (See Figure 9.) Cover the trunk fibre with glue and plastic wood, allowing the exposed part to extend above the shoe or foot. This may be hinged in the same manner in both the carved wood foot, or the papier-mache and wax-covered foot. When dry, sandpaper; fill up all cracks with plastic wood; paint and dry thoroughly. A hinge of tin may be used instead of trunk fibre, but the doll will be a noisy jingling puppet. Screw eyes and a chamois skin covering may be used on a wooden shoe by omitting the slot and trunk fibre hinge.⁵³ If a smoother surface is desired, with sole, buckle or laces more clearly defined, strips of papier-mache may be put over the entire foot and modeled with the small modeling tools used on the papier-mache head. The foot must be weighted with sheet lead on the bottom of the sole and heel. The weight can be countersunk or nailed and glued.

Shoes and feet may be moulded of beeswax or papier-mache over a wire frame.⁵⁴ Follow the same procedure as for hands, covering the form with silk tape or papier-mache. Beeswax feet do not need weighting as the beeswax is heavy enough.

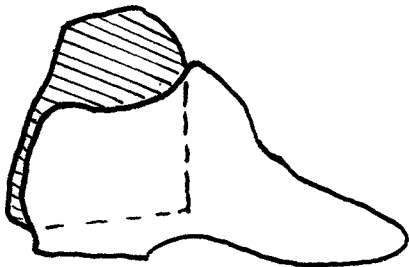
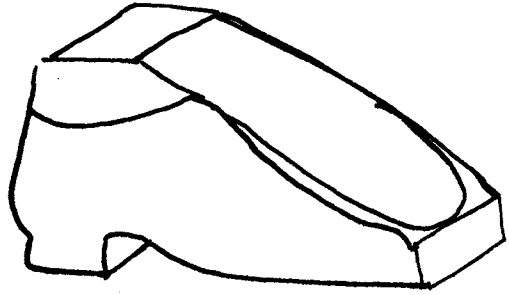
Trunk of Body.---For the upper part of the body of a twenty-four inch marionette, select a block of wood (pine)

⁵³ Helen Fling, *op. cit.*, p. 22.

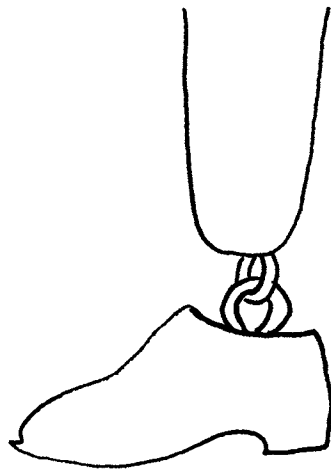
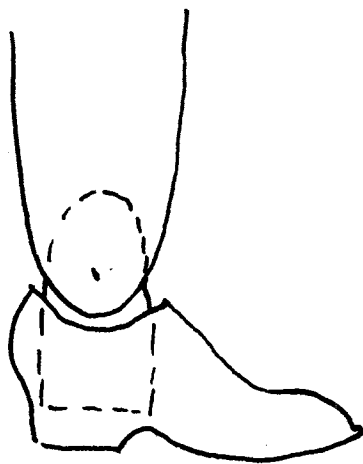
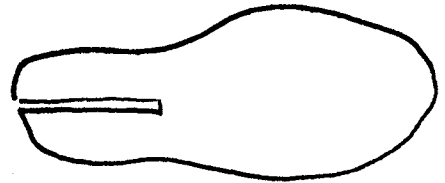
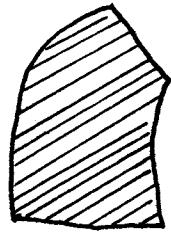
⁵⁴ Winifred Mills, *op. cit.*, p. 73.



Carved wooden foot



Fibre joint



Screw eye joint

six by two by two inches.⁵⁵ Draw approximately the shape of the shoulders in outline (Figure 10). For a broad-shouldered male, the width of the shoulders should be about half again the length of the head from top to chin. Unathletic figures, women and children are smaller in shoulder spread. Put the block of wood in the vise, saw, whittle and sandpaper until the outline is achieved. In the center of the top, drill a hole an inch in diameter and an inch deep for the neck to fit into. Build down the bottom of the rib case with balsa wood or papier-mache to a depth of about two inches. (Figure 10). This makes the puppet lighter to handle than if it had lungs of solid wood. Whittle a base for the rib case out of quarter-inch pine (Figure 10). Fasten the shoulders, rib case, and base tightly together with wood glue. Place small screw eyes on each shoulder in the middle of the shoulder width, near the arm for the shoulder strings. Be sure the screw eyes are equidistant from the edge of the shoulders, or the puppet will develop a list.

Hips.--Take a block of pine wood two inches wide, half an inch thick and about five inches long.⁵⁶ Mark it with an oval to serve as a cross-section of the hips. A

55

Sue Hastings, op. cit., pp. 49-56.

56

Ibid., p. 53.

man's hips will be considerably narrower than his shoulders. A woman's hips will be nearly the same width. Put the block in the vise and saw, whittle and sandpaper it into shape. Cut a strip of heavy muslin seven or eight inches wide and long enough to encircle the hip oval with half an inch to spare. Double it lengthwise, wrap it around the hip oval, lap neatly and nail (Figure 10). Drill two holes through the hip oval. Run a short piece of sixteen-gauge wire through it, anchoring the wire firmly on the under side. Stuff the inner layer of muslin tightly with cotton in a mound about an inch and a half deep at the center (Figure 10). Let the wire run up through the middle of the mound and thread a screw eye centered in the base of the rib case. Gather the muslin around the wire, stitching it over and over until it is fast. Twist the wire to give it a stout joint, allowing about an inch and a half of play. Nail the outer layer of muslin to the rib case. This covers the internal organs and gives a flexible, durable waist-line (Figure 10).

Legs.--It is possible to cast the legs in the same fashion as the head; however, they are much stronger and more lasting if carved out of wood. For legs that will not show in the finished puppet, lengths of dowel sticks may be used. If they are not to be covered by the costume they will need to be shaped.

For the puppet leg use a block of white pine, or other soft wood, five by two by two.⁵⁷ Outline the shape of the thigh on the block (Figure 10). Put in the vise, saw, whittle and sandpaper. Saw a slot in the lower end of the leg into which the knee joint is to fit. Cut a strip of muslin four inches wide and fit into a carved groove around the top of each thigh about an eighth of an inch from the upper edge (Figure 10). Bind the muslin in place with a piece of sixteen-gauge wire, buried in the groove. Fix a No. 114 screw eye in the center top of each thigh, packing with small bits of plastic wood for security. Stuff the muslin as the hip structure was stuffed.

Lower leg.--Select a piece of wood five by one-and-a-half by one-and-a-half inches.⁵⁸ Mark the lower leg on the block and proceed as for the upper leg. Slot the lower leg top and bottom for the hinges (Figure 10). This lower leg will fit a slotted foot with a hinge of trunk fibre or a wooden hinge.

Hold the legs in position against the hip oval, making sure there is no chance of their interfering with each other. Mark the spot where they seem to fit. It should be about three quarters of an inch from each end. Fasten the legs into No. 114 screw eyes in the hip oval.

⁵⁷ Ibid., p. 54.

⁵⁸ Ibid., p. 54.

Arms.--Cut a strip of cotton tape twice the length of the arm, allowing an inch or two extra for fastening.⁵⁹ Double it and attach the doubled end to the wrist of a wooden, wax, or papier-mache hand, sewing or glueing and tacking securely. The length of tape will act as a sinew through the center of the arm. Cut the whole arm out of muslin -- a straight tube eight by four inches long. Stitch and turn the muslin. Sew, glue or tack, as the type of hand demands, the lower end of the muslin to the wrist, drawing the double tape up through the tube. Stuff with cotton up to a point opposite the waist, packing hard, then sew a couple of rows of back stitching across the arm. Skip about half an inch and make two more rows of stitching. This makes a limber elbow joint. It helps some to put the seam of the muslin tube on the underneath side from the palm of the hand to the arm pit for a muscle. Complete the stuffing, packing hard. Leave more than an inch empty and stitch across as the elbow joint was done. Tack and glue the muslin and tape to the pine shoulder block at a centered position. Sew an inch of tape, drawn tightly across the inside of the elbow joint to prevent the arm from bending the wrong way (Figure 10). For looks, the arm can be covered with flesh-colored jersey (old underwear),

⁵⁹
Ibid., p. 58.

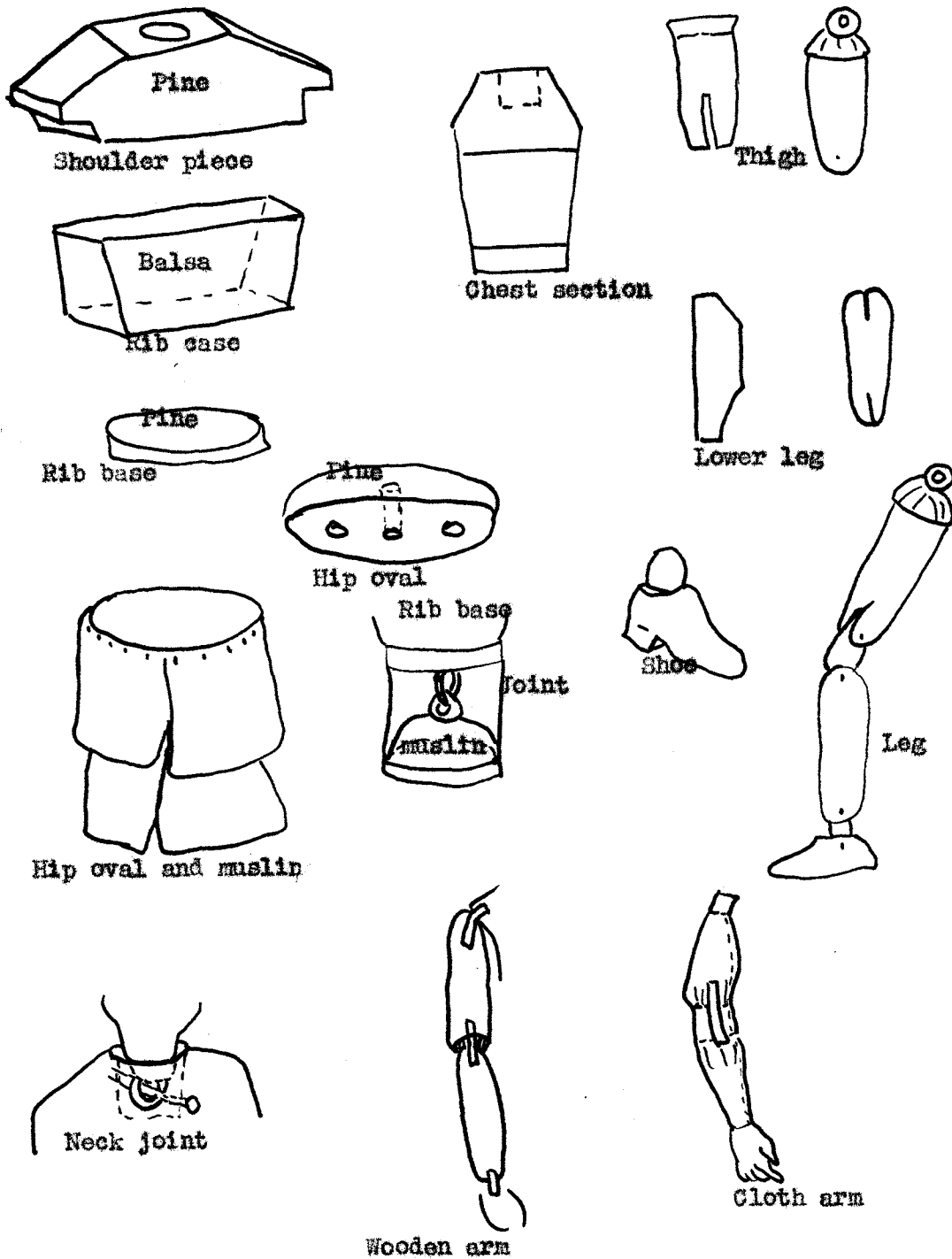


Fig. 10.--Body

georgette or painted with oils. Be careful, however, not to destroy any of its flexibility.

Neck joint.--Before joining the head, be most certain that all joints are working properly and that the body is sandpapered smooth. Connect the finished head to the body by inserting the neck into the hole in the shoulder block.⁶⁰ Drive a nail through the shoulder block, threading the screw eye or wire loop in the base of the neck (Figure 10). This gives a solid and flexible neck joint.

⁶¹
Dowel stick and wooden body.--For a twenty-four inch puppet, about thirty inches of one-inch dowel stick will be needed. Small pieces of pine or other soft wood (mill ends) may be used for the shoulder and hip construction and small strips of trunk fiber or galvanized sheet metal for joints. A piece of sponge rubber or cotton and muslin as used in the puppet body previously discussed, will serve for the pliable body section. About five inches of small chain may be attached to the shoulder section, extended through the soft body, and connected to the hip and leg section. Strong wire, inch nails, small staples, tiny screw eyes and chamois or leather will make wrist joints and neck joints.

The diagrams and measurements explain themselves (Figure 11). The measurements must be varied to agree

⁶⁰

Ibid., p. 59.

⁶¹

Virginia Murphy, op. cit., p. 11.

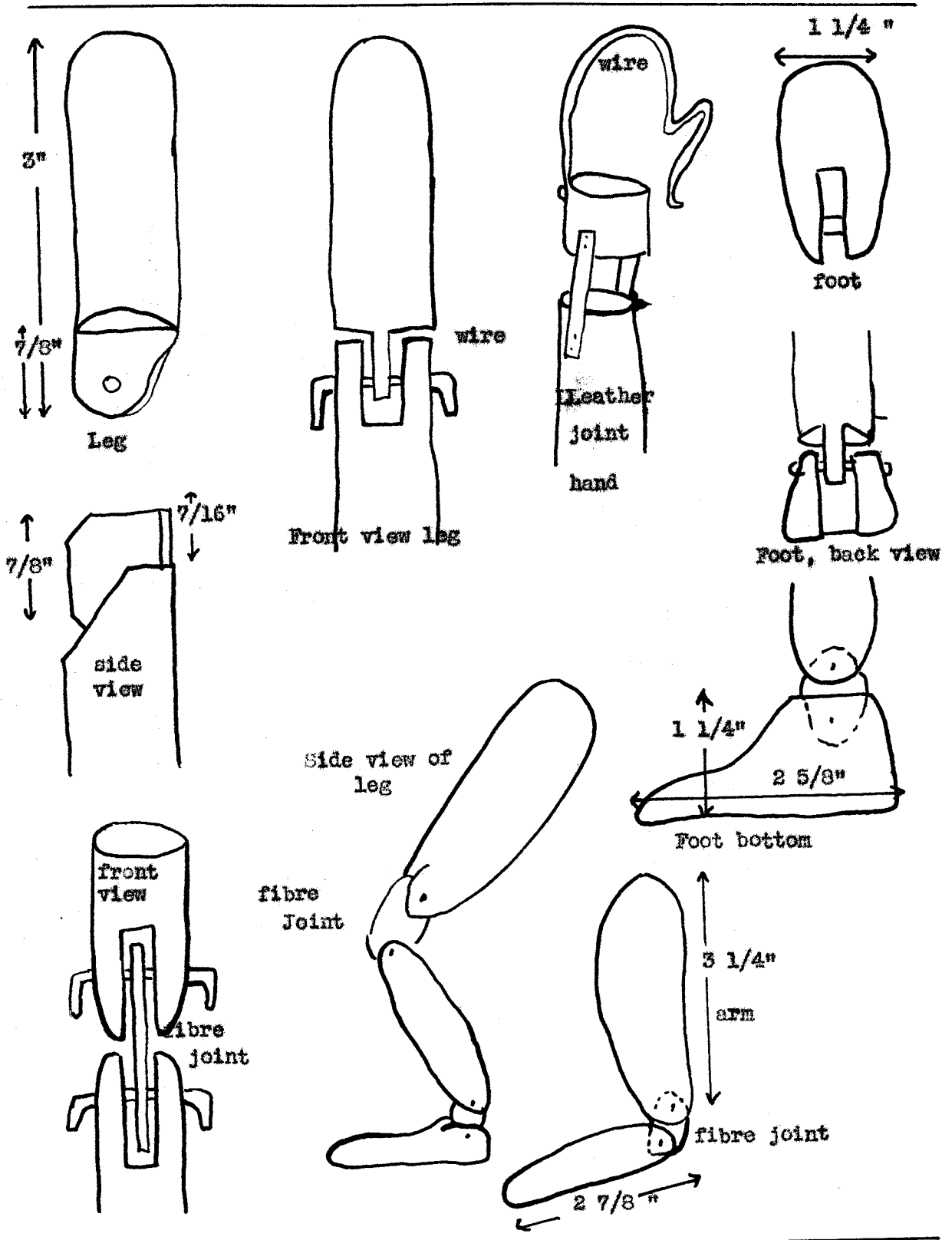


Fig. 11.--Joints

with a change of size, as for a child character. Watch the angle at which the dowel is cut to give the proper bend at elbow and knee joints. All cut edges should be carefully sandpapered to remove any roughness that would catch in the clothes or strings. Careful workmanship in the construction is absolutely essential for flexible movement of the puppet. Hands and feet may be weighted to bring them back to a normal position after an upraised gesture. Feet must be attached properly to avoid the disconcerting effect of having one foot "toe in" out of line with the other foot. The most fatal mistake of the amateur is that of making the feet too small.

A carved wooden body.--If a puppet does not need to bend at the waistline or perhaps for a first try with wood construction, the following directions will be found helpful.

Carve the torso, which is the simplest of all parts to carve, from a block of very soft wood seven inches long and five inches across at the shoulders (Figure 12).⁶² Drill a hole, for attaching the neck, in the shoulders as previously discussed. For attaching the arms, drill holes about one eighth of an inch in diameter at the ends of the shoulders. These should be drilled at an angle so that they pierce through the back. Drill the same sized hole through the

⁶²Remo Bufano, Be a Puppet Showman, pp. 63-69.

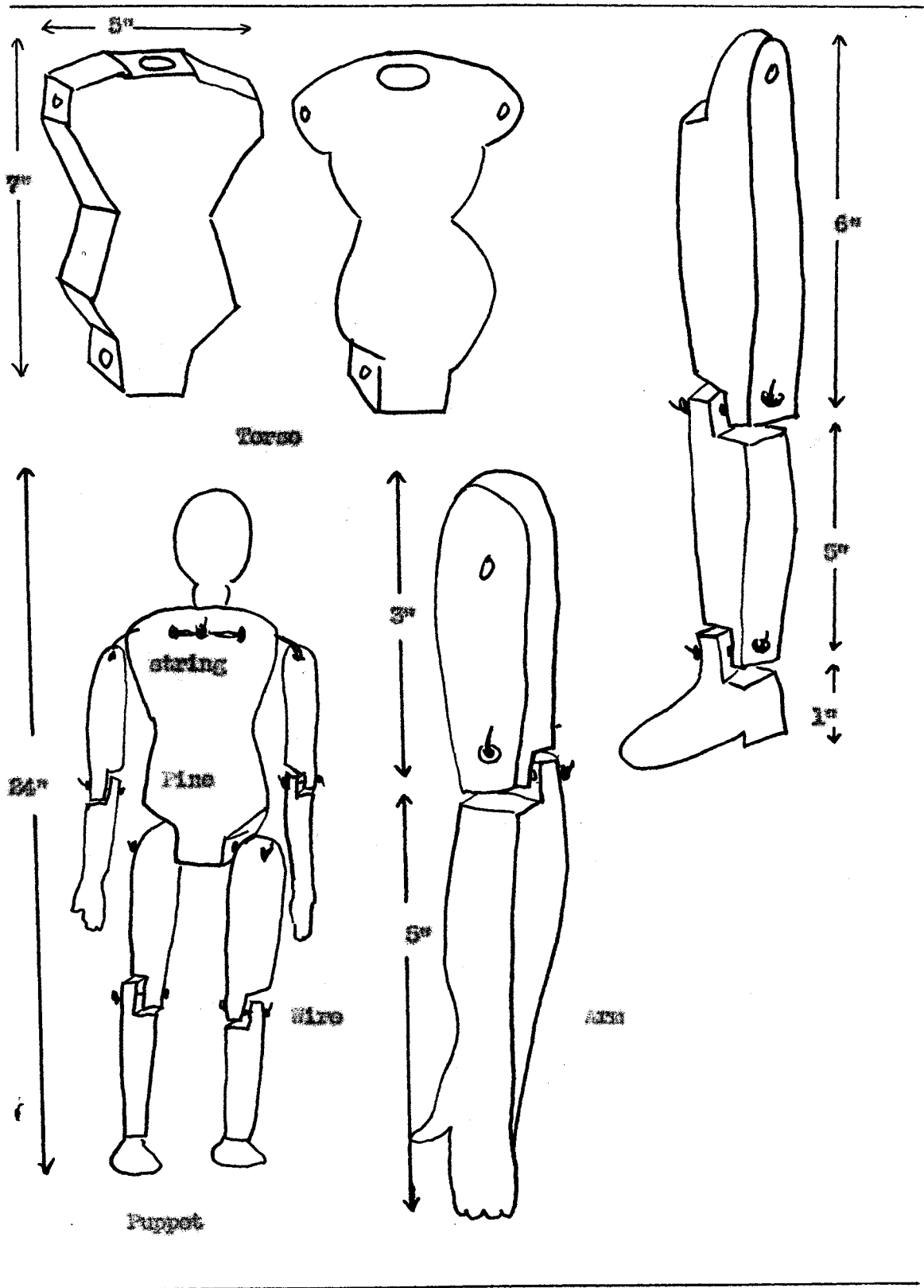


Fig. 12.—Body

base of the torso for attachment of the legs.

The legs, when finished, should be twelve inches long. The upper leg should be about six inches long; the lower leg, five; and the foot one inch from heel to ankle. Drill one-eighth inch holes for hinges and cut away joints as indicated in Figure 12. Thread joints with a heavy cord, knotted securely.

The construction of the arm is not very different from that of the leg (Figure 12). Using wood of one-inch thickness, cut two five-inch lengths, attaching the hand to one length. Drill the hole in the upper arm at an angle. Slip a heavy cord through the upper arm, through the shoulder, out the back and tie to the other arm cord, threaded similarly.

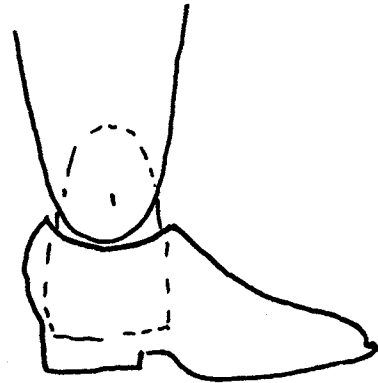
Attach the hips to the legs with a stiff wire, filed smooth.

Other illustrations of joints that are self-explanatory will be found in Figure 13.⁶³

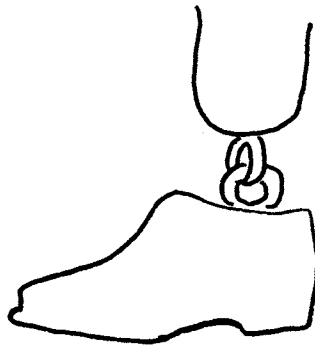
A screw eye joining is an easy way to attach the legs to the feet, but it is not too satisfactory because of hanging and immobilizing the puppet on the stage. The screw eye joint must either be covered by a stocking or a chamois cuff (Figure 13).⁶⁴

⁶³ Ibid., pp. 90-93.

⁶⁴ Helen Fling, op. cit., p. 22.



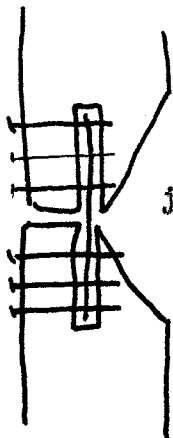
Fibre joint



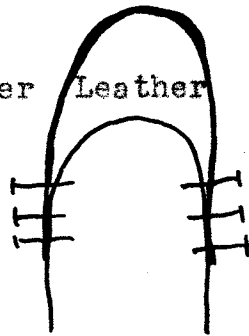
Screw eye joint



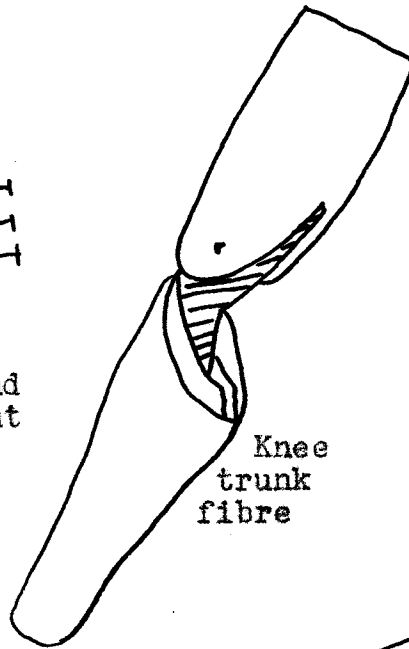
Chamois covering



Leather knee joint



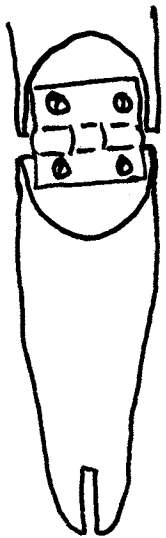
Shoulder and thigh joint



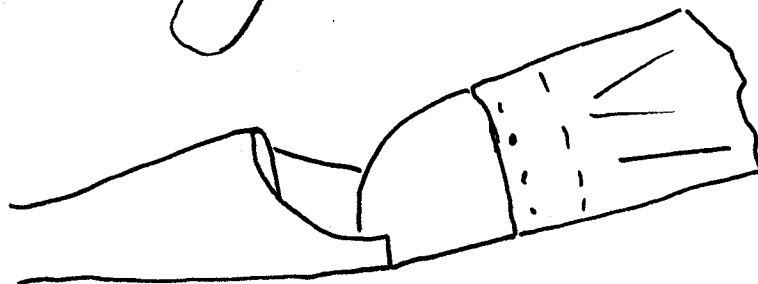
Knee trunk fibre



Trunk fibre



Hinge joint



Thigh - muslin joint

Fig.13.==Joints

A trunk fibre joint is the best for joining feet (Figure 13).⁶⁵

Pieces of good leather or rubber inner tube make the most satisfactory joinings for hands, elbows, knees, shoulders and hips. It is most pliable and makes no noise. Never use an old kid glove as this stretches too easily. Leave enough space between the dowel stick joints for good movement and fasten the leather with wire brads (Figure 13).⁶⁶

A wooden knee joint using trunk fibre for a hinge is strong and most satisfactory if carefully made (Figure 13). Be careful in the centering of the pin nail, and be generous with the glue in the slot of the lower arm.⁶⁷

Little brass hinges may be used in elbow and knee joints, but are most difficult to get centered on the angle of the dowel sticks. If the hinges are not correctly centered, the arm or leg takes an off swing (Figure 13).⁶⁸

For joining the thigh to the hip piece, screw eyes, leather or muslin may be used. If muslin is used, stuff with cotton, leaving one inch to be tacked to a hip base or threaded over wire (Figure 13).⁶⁹

⁶⁵ Ibid., p. 22.

⁶⁶ Ibid., p. 24.

⁶⁷ Ibid., p. 25.

⁶⁸ Ibid., p. 26.

⁶⁹ Ibid., p. 28.

A muslin and a wood arm may be made as in Figure 14.⁷⁰

For a shoulder piece use a block of soft pine, six by two by four inches (Figure 14), and for a hip form, use a piece six by two by three inches. Join the shoulder section to the hip section with screw eyes covered with chamois or stockings. To lengthen this torso, a few links of small chain or wire may be attached to the screw eyes. (Figure 14).⁷¹

A different and very light method of hip construction may be used with the same shoulder piece as discussed above. Use a block of quarter-inch pine six inches by two inches for the hip oval. (Figure 14)⁷² Place a piece of wire through the hip oval; or, if desired, chain or leather may be threaded in the rib case screw eye.

Figure 15 shows different types of hip pieces with muslin thigh joinings.⁷³ In each of these four types one must be sure the legs are set far enough apart for plenty of freedom of movement so that the legs may swing without interference.

Figures 16 and 17 show full marionette figures drawn to scale with other practical joinings.⁷⁴ Figure 17 shows the placing of screw eyes for stringing.⁷⁵

⁷⁰
Ibid., p. 30.

⁷¹
Ibid., p. 31.

⁷²
Ibid., p. 33

⁷³
Ibid., pp. 35-36.

⁷⁴
Ibid., p. 41.

⁷⁵
Ibid., p. 43.

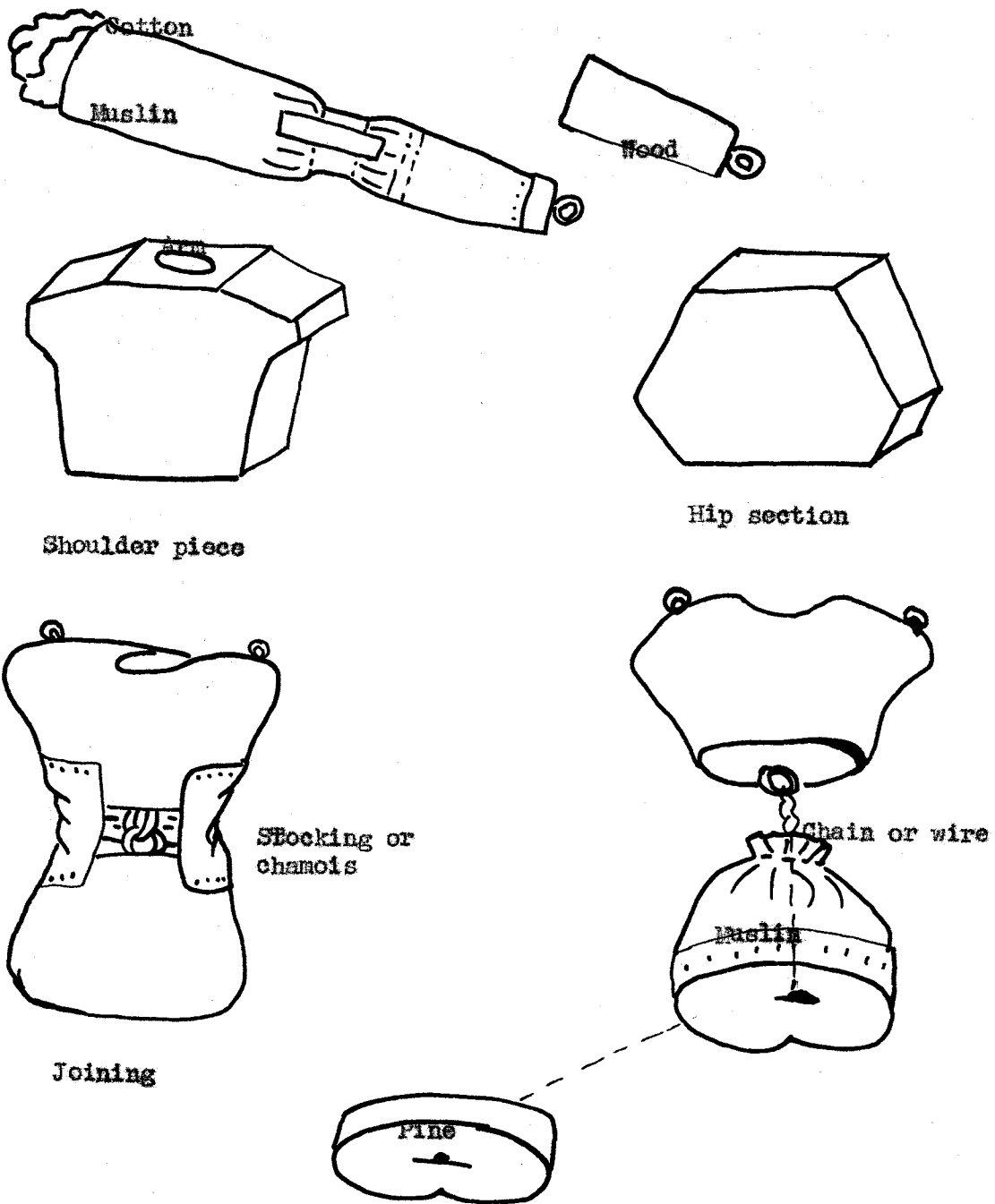


Fig. 14.--Body

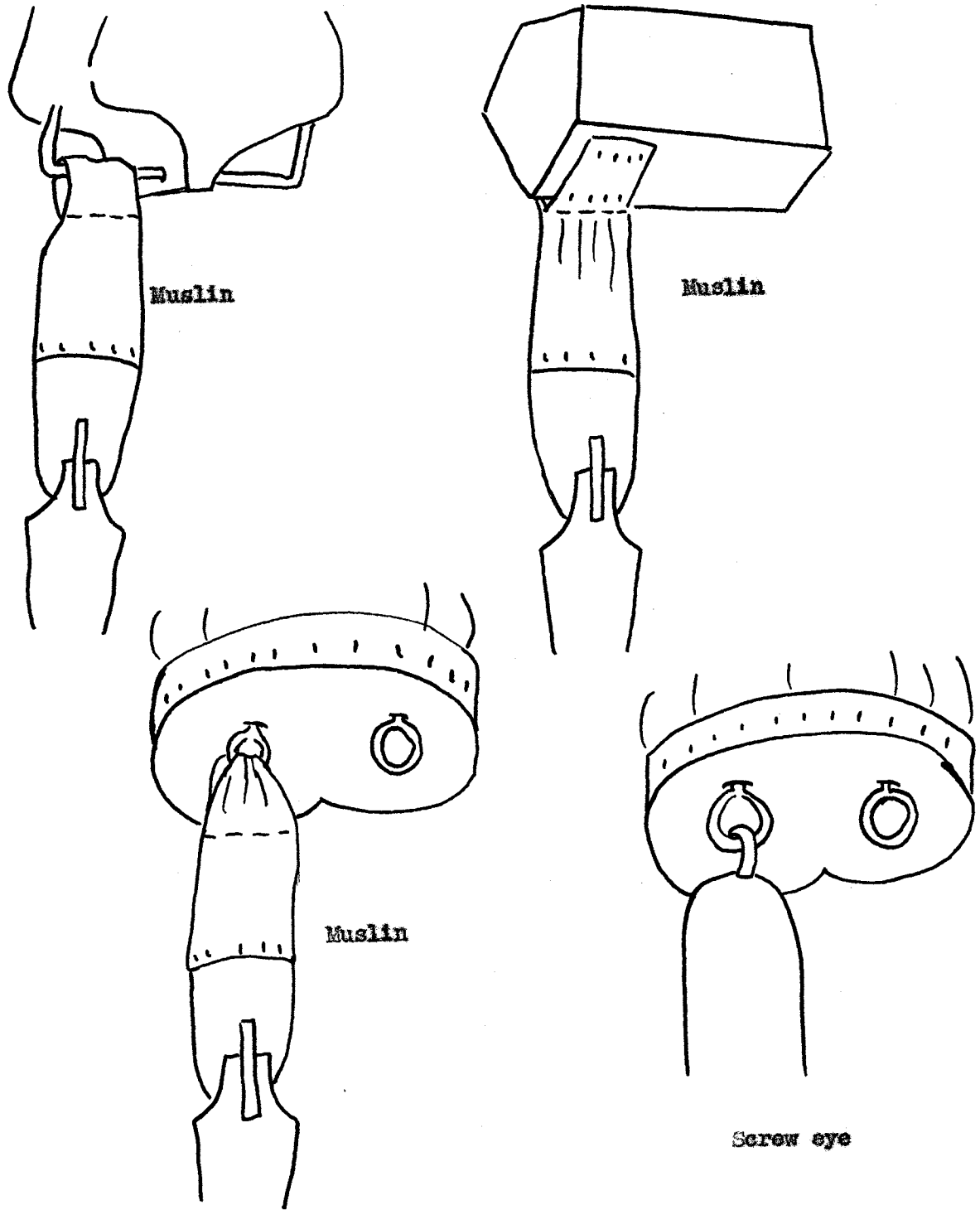


Fig. 15.--H ip joints

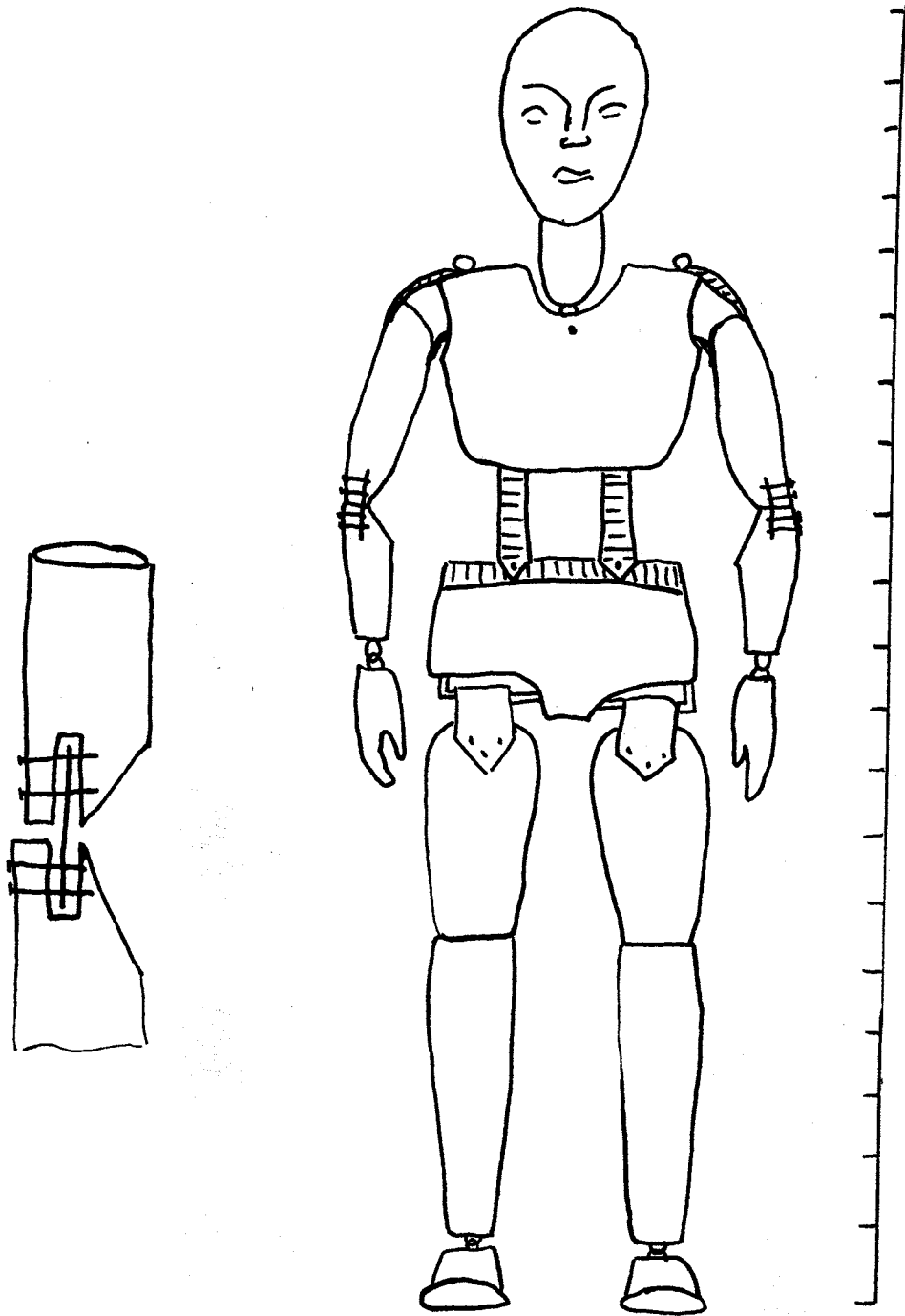


Fig.16.—Complete Marionett^o

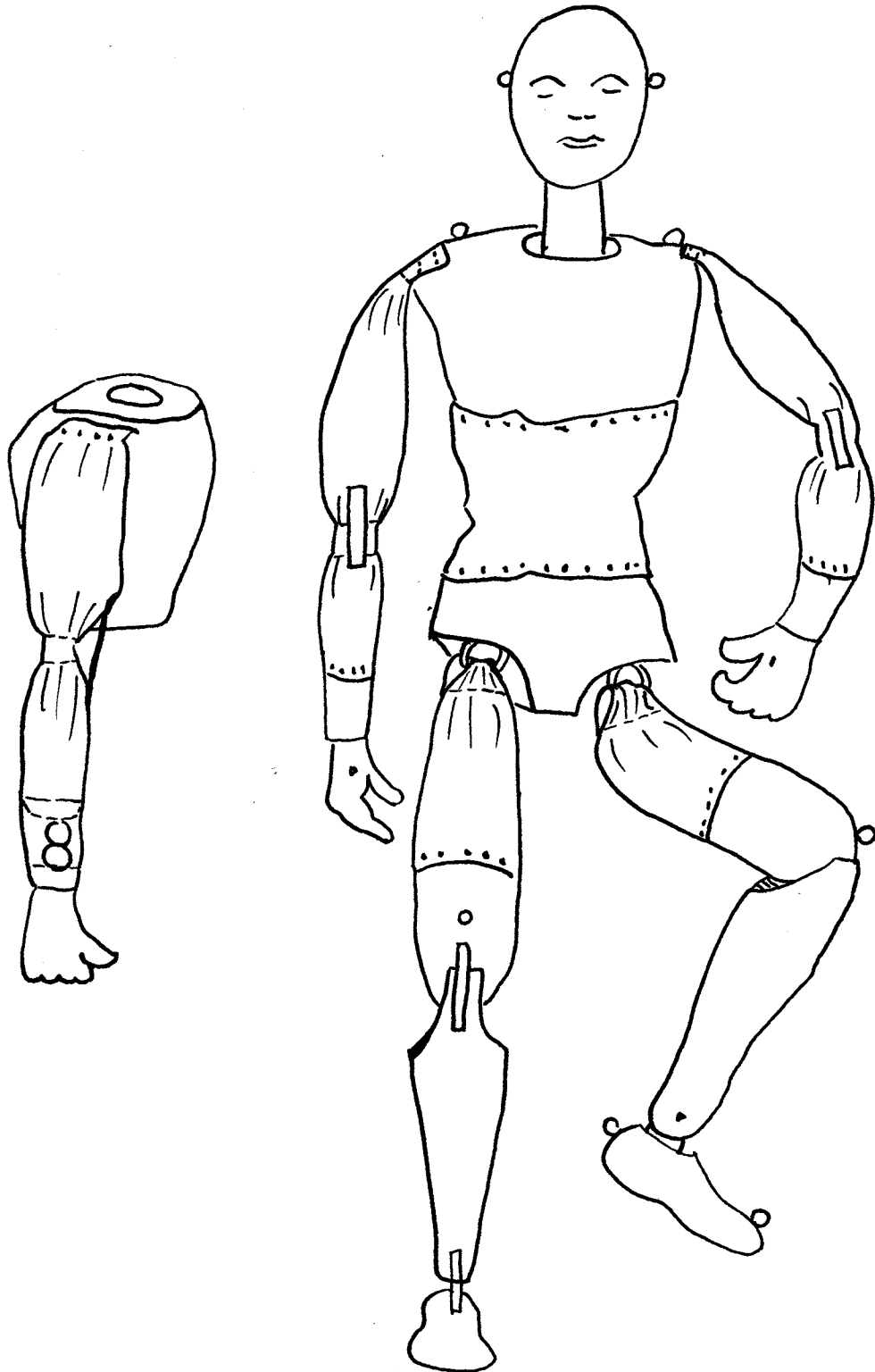


Fig. 17.—Complete Marionette

Screw eyes on the feet are not necessary unless the puppet is doing some special foot action.

Controls

A simple method of control for beginning children on a bead, peg or Dutch doll is a single heavy wire attached to the shoulders or the head with a clothes hanger hook bent down for hanging and holding the marionette.⁷⁶ This simple method merely moves the doll about the stage by lifting and lowering the figure in quick succession. The legs swing back and forth of their own accord like clock pendulums. One must utilize this momentum to make this marionette walk. With practice this can be done, swinging first one leg forward and then the other by slightly raising the figure and turning the wrist at the same time. Only very small figures (eight to twelve inches) are handled on a single wire, and the action of the marionette is very limited (Figure 18).

A variation of this type of wire control that has slightly more movement is a single wire running from the shoulders of the doll to a convenient height for the puppeteer, the other end of the wire being bent into a loop for hand strings (Figure 18). The hand string is a

76

Remo Bufano, op. cit., pp. 73-74.

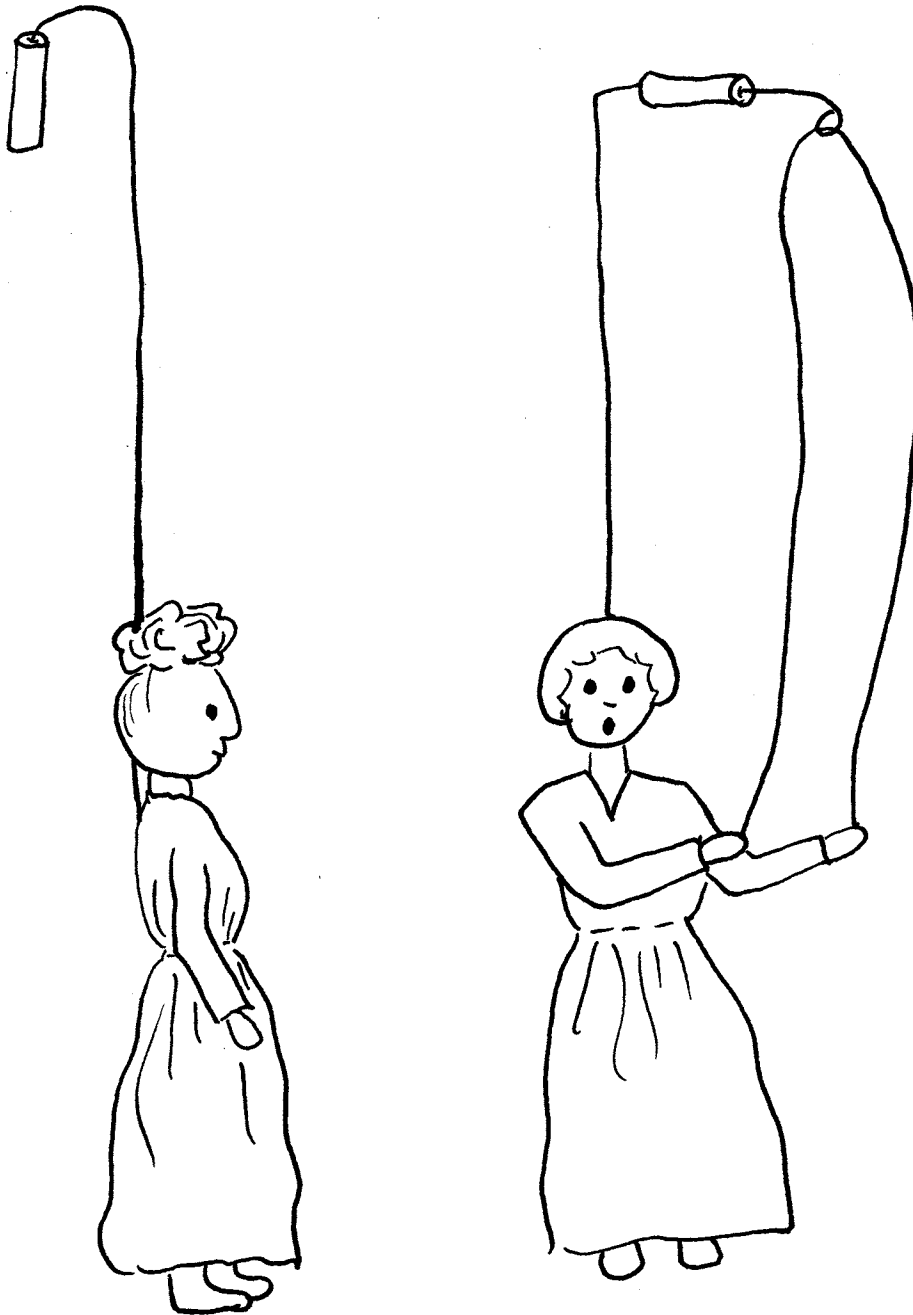


Fig.18.--Simple wire controls

running string.⁷⁷

Puppets from six to twelve inches can be controlled on a simple type of dowel rod control. This consists of two pieces of half-inch doweling six inches long with grooves cut for the strings (Figure 19).⁷⁸ The most practical type of controller for complete control of the marionette is the airplane type or some variation of it. It is simple, yet it is satisfactory in all cases and for all uses except the trick-puppet. It can be made of any light-weight wood which will not split easily. The main bar should be from eight to ten inches long, depending on the size of the figures to be used, and the cross bar six to eight inches long. These two strips of wood are fastened together to form a "T" and are the main control. The foot bar is a separate strip seven to nine inches long.

In the following pages there are some of the airplane type of controllers that seem satisfactory for children in the upper grades. (See Figure 20,⁷⁹ Figure 21,⁸⁰ and Figure 21.)⁸¹

⁷⁷ Waldo S. Lanchester, op. cit., p. 20.

⁷⁸ Ibid., pp. 29-30.

⁷⁹ Edith Flack Ackley, op. cit., p. 14.

⁸⁰ Winifred H. Mills, op. cit., p. 60.

⁸¹ Helen Fling, op. cit., p. 3.

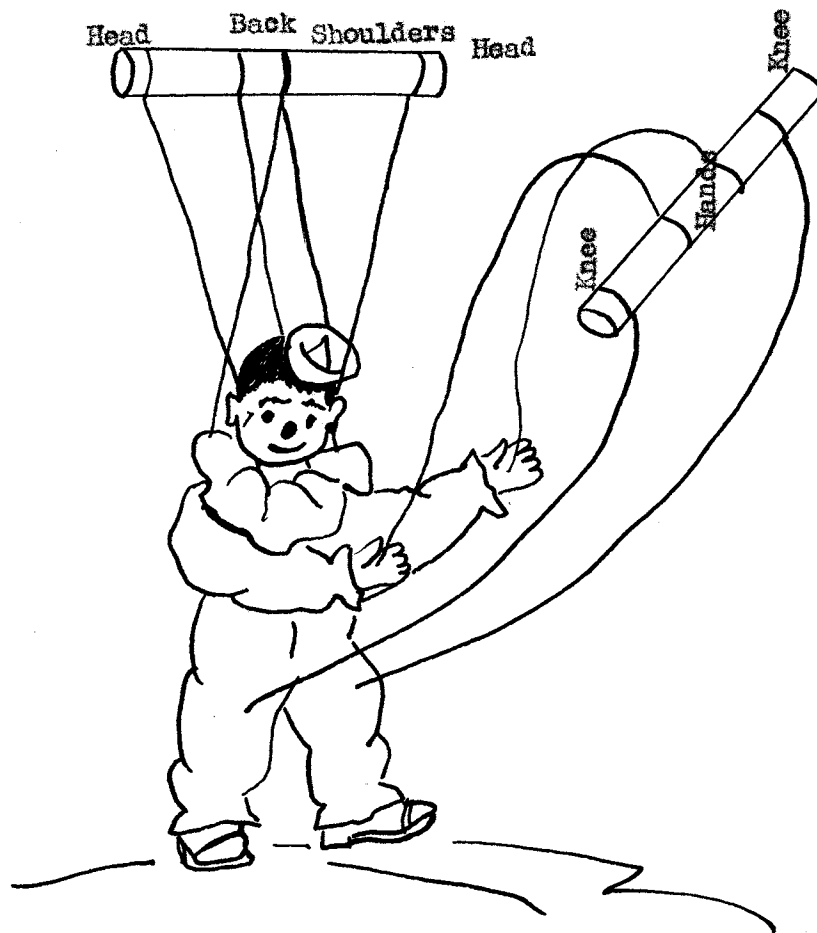


Fig. 19.--Dowel Rod Control

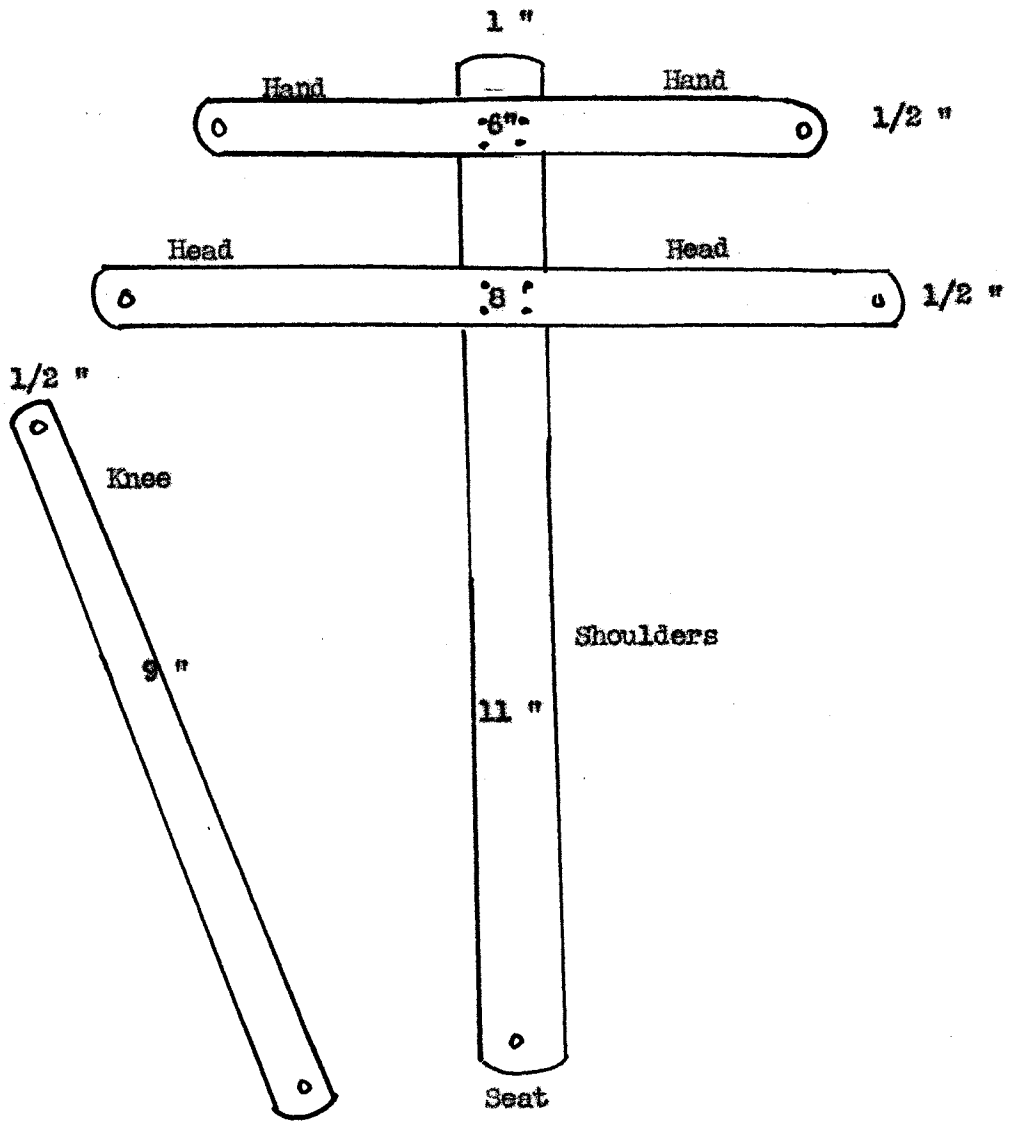
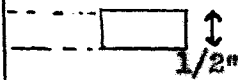
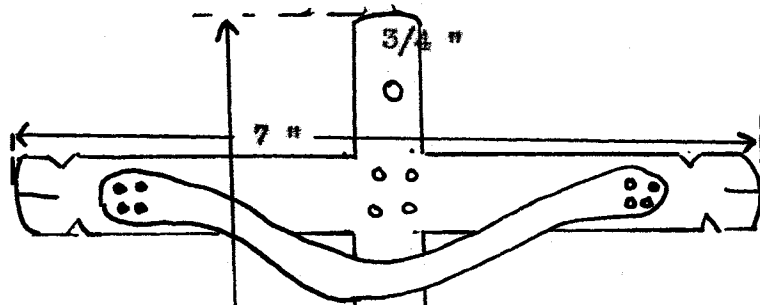


Fig. 20.—Airplane Control



10"

7"

5/4"

9"

1/2"

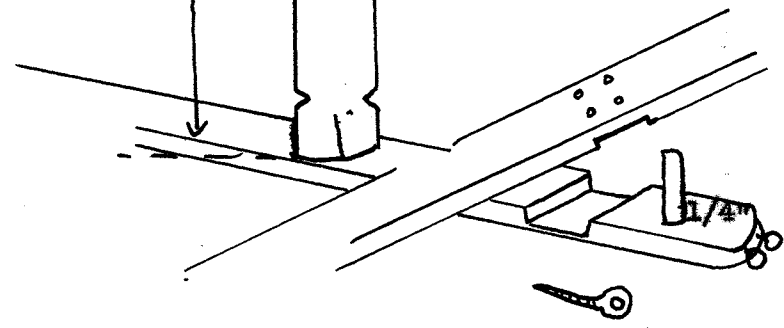


Fig. 21.--Airplane Control

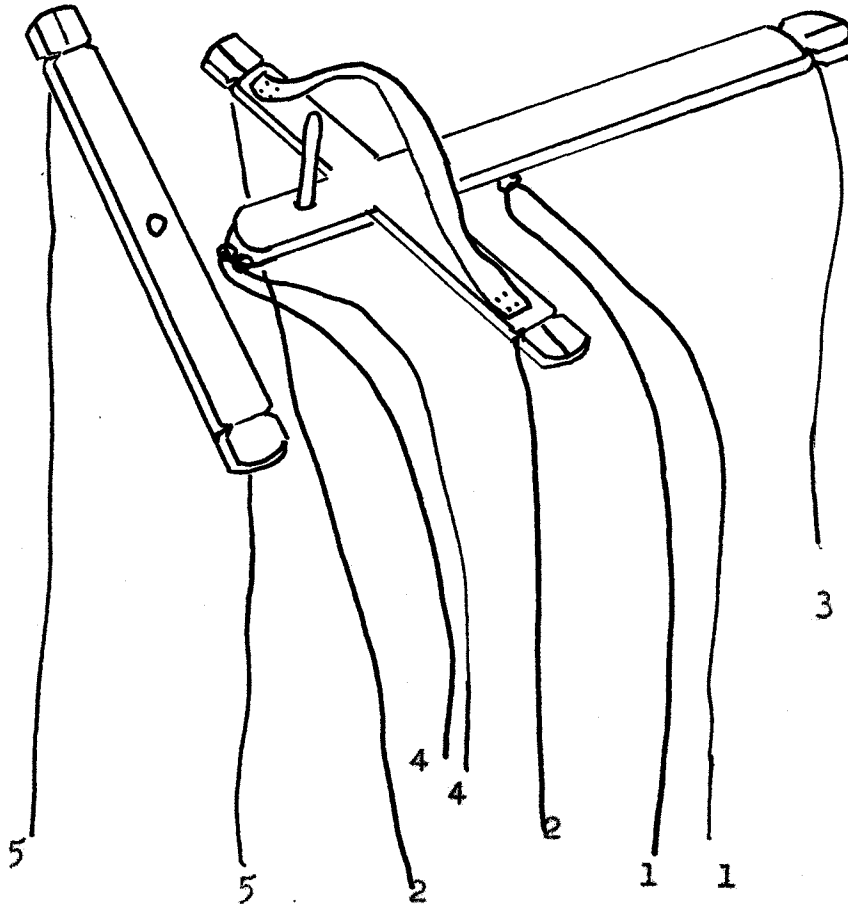


Fig. 22.--Stringing of Fig.21

1. Shoulder string, a continuous running string
2. Head string
3. Back string
4. Hand strings are continuous running string
5. Foot strings

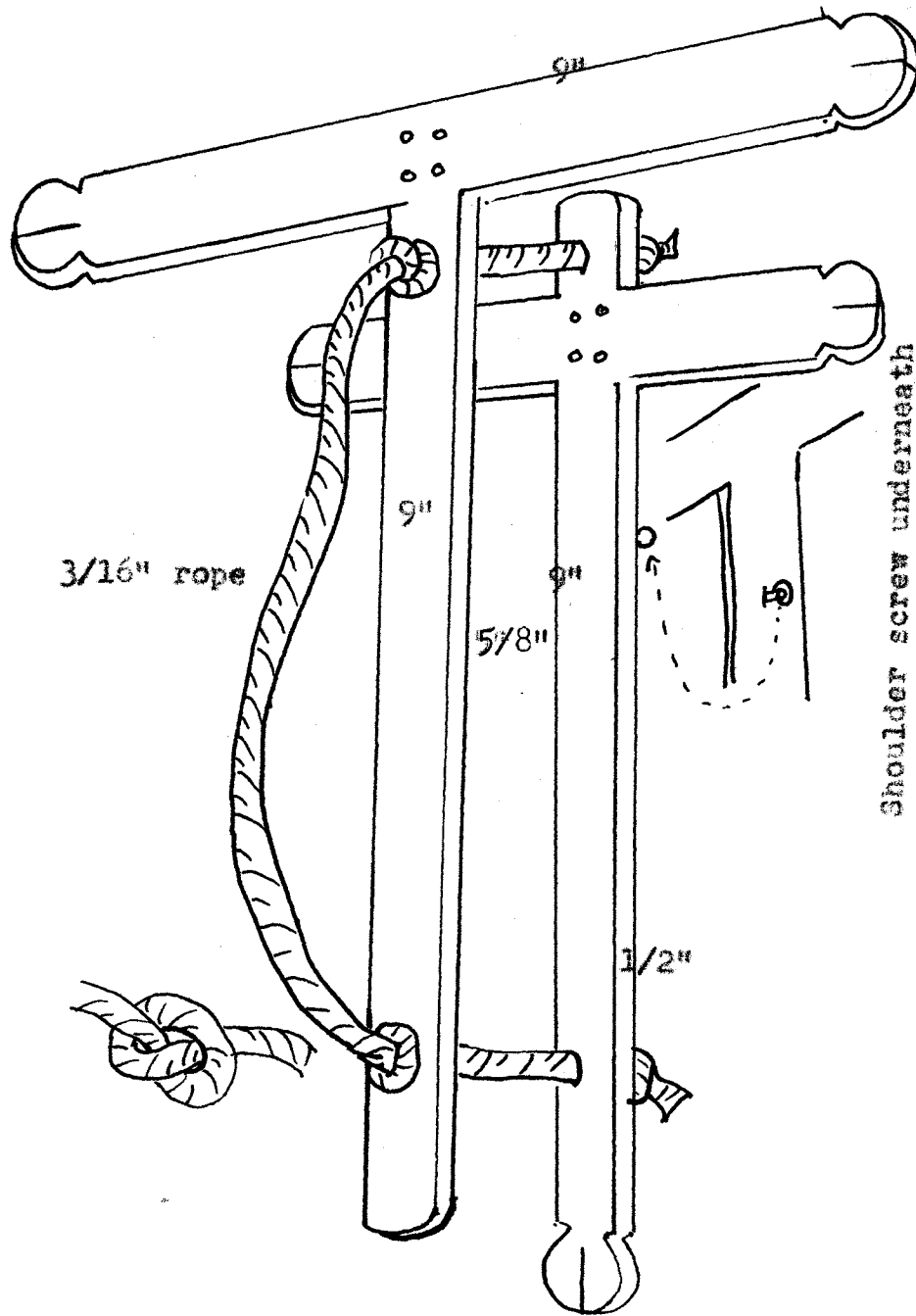


Fig. 23.--Control

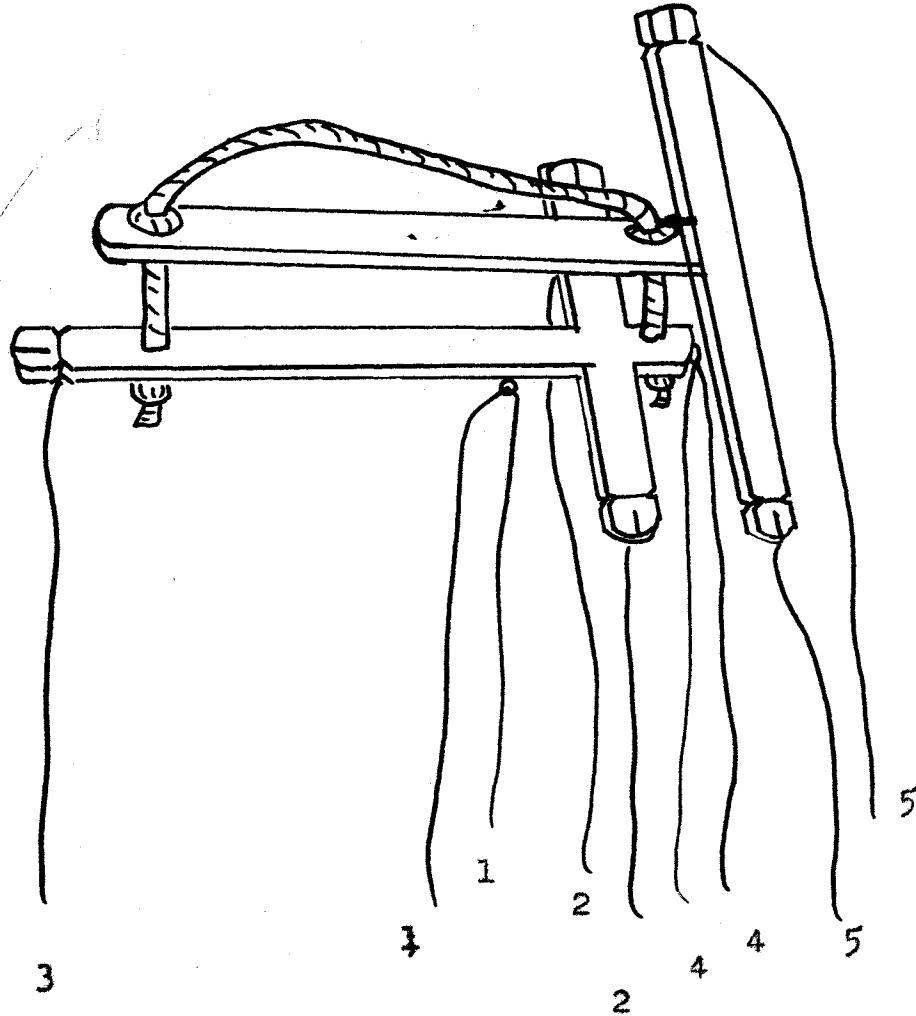


Fig. 24.--Stringing of Fig. 23

1. Shoulder string is a continuous running string.
2. Head strings.
3. Back string.
4. Hand strings are continuous running strings.
5. Foot strings.

Stringing.-- The permanent stringing of the marionette is not done until the marionette is dressed, although one may wish to try the doll out before costuming to see that all joints and screw eyes are operating with smoothness. The best string to use is black silk fish line of about ten to twelve pound test weight.⁸² The shoulder strings should be attached first, so that the body, when lifted from the floor, will hang level.⁸³ It will be most satisfactory if two people work together, as it is much easier to adjust the strings if another is holding the control. The length of the strings will be governed by the height of the puppeteer and whether the marionette will be operated from a bridge. The head strings should be fastened so that the head will be held up straight while the figure is held away from the floor with the shoulder strings. The other strings must contain a sufficient amount of slack so that the body can move freely without these strings becoming taut, but excess length should be avoided to eliminate tangling.

Stringing of controls is shown in Figures 20,⁸⁴
21,⁸⁵ and 22.⁸⁶

⁸²
Sue Hastings, op. cit., p. 61.

⁸³
C. and L. Higginbotham, op. cit., p. 15.

⁸⁴
Ibid., p.14. ⁸⁵ Winifred Mills, op. cit., p.60.

⁸⁶
Helen Fling, op. cit., p. 5.

Operation.--The operator of a marionette will experience many unanticipated difficulties in learning to control movements with any degree of accuracy. Even seasoned operators often spend months learning the operation of one marionette. Sue Hastings urges one to "rehearse, rehearse some more, rehearse till you drop."⁸⁷

The marionette is more difficult to make, it is true; its technique is more intricate, and as a rule it requires more elaborate staging and lighting. On the other hand, the string type is more expressive, more flexible, and capable of greater subtlety than the fist puppet. The results usually justify the additional outlay of energy. Since the string marionette is the most difficult to stage and operate, it is strictly an upper-grade activity that has had previous experience with puppets.

The string marionette can be simplified, but it is not capable of very much adaptation. Since in the end the use of the string marionette by children savors of makeshift rather than adaptation, the other forms seem to invite larger use of the schoolroom. It is said that "it takes three years to make a good string puppeteer."⁸⁸

There are few definite instructions to be given for

87

Sue Hastings, op. cit., p. 12.

88

Emma Petty, The Puppet as an Elementary Project, p.16.

operating marionettes. The controls must be held high enough that the feet of the figure barely touch the floor while the body is still held erect; otherwise, the marionette will stand in half-reclining position or with a decided slump.

When pulling the strings, very slight movements should be made as the marionette will respond so readily that abrupt jerks of the strings will result in jumping movements.⁸⁹ The size of the marionette governs in some degree the string movement required. The best size for the amateur's first marionette is from twelve to fourteen inches from head to foot.

Usually the best method of control is to hold the foot control with the left hand and the main control with the right.

Allow children at least two weeks of daily practice with string puppets that they may grow accustomed to the feel of the marionette before rehearsals of a play begin. For the first play, months of rehearsal are not too many to achieve a finished production.⁹⁰

Costuming

Puppet costuming is especially important because it not

⁸⁹
Higginbotham, op. cit., p. 16.

⁹⁰
Hastings, op. cit., p. 12.

only enhances the scenic picture but helps the audience to identify the various characters. If several figures are to appear together on the stage, visualize the costumes as a group, in relation to each other and in relation to the background and lighting.⁹¹ Keep the general picture as a whole in mind. Variety of texture is as important as variety in style and color. For marionettes the patterns in materials must be in scale to the size of the figures.⁹²

There are three major things to remember in dressing a puppet: the cloth used should be light and as flexible as possible; it should be as loose as possible, particularly around the joints; and there should be very little of it.⁹³ Added weight and bulk increase the difficulty of operation and should be avoided. Occasionally it is necessary to stitch dress weights in the hems of skirts or unruly coat tails to make them hang well.

Milliners' glue is an excellent medium for securing bands of trimming, applique, designs or insignia. All trimmings, as well as clothing, must be stitched firmly in

⁹¹ Murphy, op. cit., p. 13.

⁹² Ibid., p. 13.

⁹³ Higginbotham, op. cit., p. 13.

place to facilitate the swift handling of puppets backstage.⁹⁴ To prevent accidents as far as possible, it is best to glue hats to heads and tack down unruly bits of costume that seem likely to interfere with a smooth performance.

Keep a "glory box" of interesting pieces of cloth, plain and figured, of various textures, braids, buttons, cottons, yarns, bits of fur, felt, oilcloth and leather.⁹⁵ Puppets need a wide range of glittering and spectacular accessories to add glamour where it is needed.

Fist Puppets

The fist puppet has its limitations; in fact, half of it is missing. On the other hand, an advantage of this type is that it is easier to make and to operate, and it does not require an elaborate setting. It is possible for an operator to manipulate two puppets, one on each hand. The smallest child can get response from them. For a schoolroom the results are more certain if manipulation is from below the curtain rather than from above.⁹⁶ In the hands of the unskilled it has definite advantages over the intricate levers, joints, and strings of the marionette.

⁹⁴ Murphy, op. cit., p. 13.

⁹⁵ Hastings, op. cit., p. 74.

⁹⁶ Petty, op. cit., p. 16.

A simple, improvised hand-puppet can be made by cutting a hole in a rubber ball, a potato, or a block of soft wood, placing it on the forefinger and using a handkerchief or piece of cloth. Any of the various methods of improvised heads, papier-mache, plastic wood or carved heads discussed under string-puppets can be used for fist-puppets' heads.

The fist-puppet ordinarily consists of head, arms, and a sleeve to conceal the operator's arm.⁹⁷ The forefinger is inserted into a hole in the head. The hands are attached to short cardboard tubes which fit over the thumb and third finger (or little finger). Because the fingers of the hand are not equally placed, the puppet arm to be worked by the thumb is lower than the one to be controlled by the third finger. Due allowance should be made for this in designing the undergarment. Usually, a hand-puppet is made to fit either the left or the right hand, on which it is always worked.⁹⁸ The two fingers not in use are bent down into the palm of the hand; it helps if there is a small pad attached to the front of the head for them to grip.

⁹⁷ David Frederick Miller, Fist Puppetry, pp. 8-9.

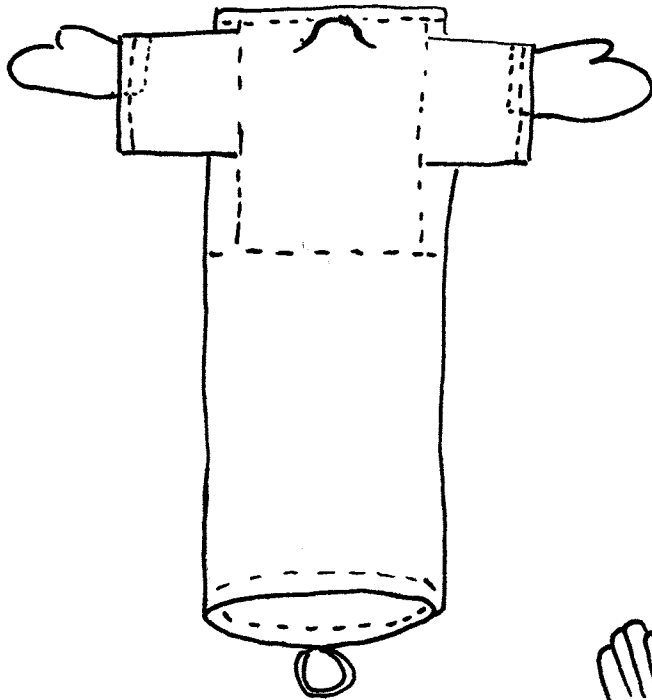
⁹⁸ Lanchester, op. cit., p. 18.

The characteristic short arms of the hand puppet are sometimes a disadvantage. If necessary, they can be made longer with cardboard tubes or wire, but longer arms are more difficult to handle, especially for small children's hands.⁹⁹ Generally, it is best to be content with the ordinary little arms that are worked by the fingers, relying on costume and sleeve to camouflage their shortness. There is a wide choice of sleeves and under-sleeves, cuffs, and bracelets; also a variety of hands of wood, kid, rag and wire -- some with wrists, some without. (Methods of making marionette hands are used for hand puppets.) Shoulders padded with wire and stuffing are often used to give the hand puppets better form. Chests can be padded for fatness, or effects of humps fore and aft may be added on the permanent undergarment.

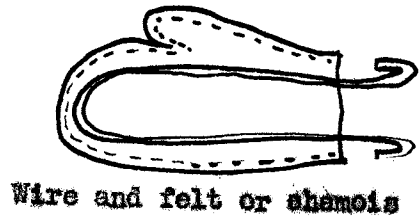
In general, hand puppets can do very well without feet.¹⁰⁰ Legs can be sewed to the undergarment. (See Figure 23). The legs may be stuffed with cotton, with a knee joint left loose. Shoes or feet may be attached to the legs and are made of wood, papier-mache or plastic wood. There should not be too much movement in the ankle joint, or the foot will dangle.

⁹⁹ Flicklen, op. cit., p. 49.

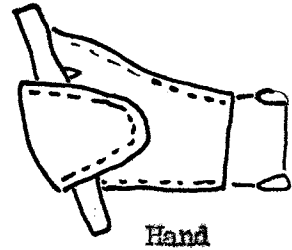
¹⁰⁰ Batchelder, op. cit., p. 39.



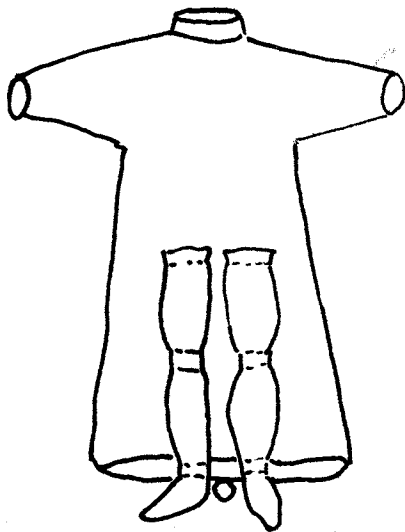
Undergarment



Wire and felt or shamoiis



Hand



Undergarment with legs

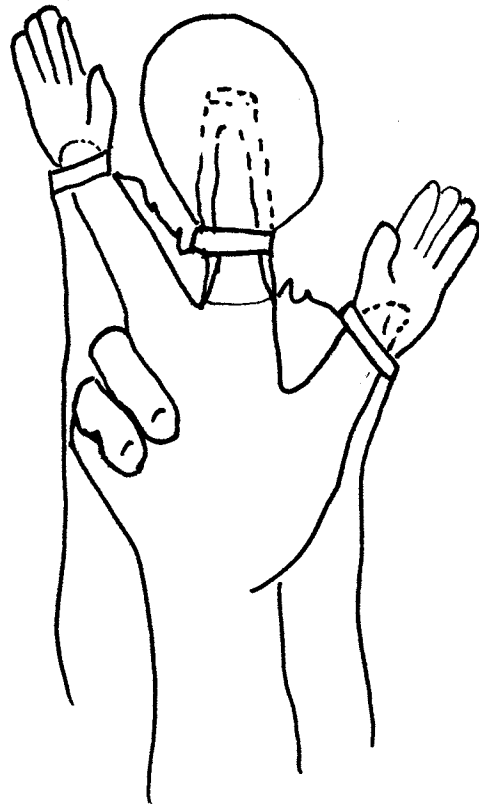


Fig. 24.--Fist Puppets

Hand puppets should not be made too tall; if the costumes reach below the elbow, it is difficult to show the figure at its full height because the figure must be held above the operator's head and worked on the stage floor line.¹⁰¹ The size and weight of the puppet must be gauged by the size of the child that will do the operating.

A ring sewed to the bottom edge of the undergarment at the back is convenient for hanging the puppet in place so the operator can get his hand on it easily during performance. Grooves cut in the cotton of the neck and wrist make a secure way of fastening the undergarment to the hands and head with glue and wire.¹⁰² The color of the undergarment depends upon how the puppet is to be costumed although black is usually preferable. This foundation garment is a simple kimono-like dress cut with sleeves, front and back alike.¹⁰³ Various dresses may be made to fit over the undergarment; they will need to be cut slightly larger.

101
Milligan, op. cit., p. 43.

102
Lanchester, op. cit., p. 18.

103
Milligan, op. cit., p. 42.

Shadow Puppets

Shadow puppets depend upon their mass for their effectiveness; almost any figure, side or front view, which has a quickly identified, clear-cut outline, can be adapted to a shadow puppet.¹⁰⁴ Make line drawings of figures -- brush and ink on white paper are good -- or try freehand cutting from cardboard for preliminary experiments. Think of the action needed and work out a smooth jointing system. If the figure has little to do it may be a simple silhouette mounted on a stick as discussed in the beginning of this chapter. Use as few joints as possible and limit them to the action which is required of the character. Joints overlap and are based on the principle of a circle. From the tentative sketch, cut out all parts from stiff paper and join them together with brads, thread or pins.

There are many materials which are effective for shadow puppets.¹⁰⁵ Simple silhouettes for the primary child may be cut from black cover paper (a light weight cardboard) and they are powerful, yet simple to make. Clear stencil paper is semi-translucent and can be painted with oil colors; to make it more translucent, paint it with a mixture of linseed oil (two parts) and turpentine (one

104
Petty, op. cit., p. 35.

105
Batchelder, op. cit., p. 28.

part). Black cardboard may have openings cut with a stencil knife, over which are pasted pieces of colored cellophane, gelatin, or colored construction paper treated with the oil-turpentine mixture.¹⁰⁶ Many kinds of fairly heavy colored paper can be handled the same way. Colored sheet plastics, clear or translucent, make excellent shadows. Several colors can be used by superimposing them and cementing them with the proper solvent. Paper punches of various sizes make nice polka dots; other shapes can be cut out with dies which one may invent or buy. White transparent plastic can be colored with aniline dye, or painted with transparent water color if the surface is rubbed down with fine sandpaper.

The main control rod is usually a small wooden rod fastened to the feet or body in such a manner that it will interfere very little with the silhouette of the shadow; wires or silk fish line may be attached to the movable parts of the body. If a stiff rod is needed to move a part of the figure, an old umbrella rod is useful, but a little thick. If the end of fine stiff wire can be hammered flat and a small hole drilled for attaching it to the puppet, the rod will operate better. Small dowels or square sticks can be used for handles at the other end of the wire. Attach

106

Mills, op. cit., p. 218.

a ring to the fish line for a handle. A bit of glue on the fish line knots will prevent their coming undone.

Composition and pattern are extremely important in shadow pictures. The shadow play should not appear comical but beautiful, as it is supposed to be.¹⁰⁷ It guides the child to see in life and choose from it beautiful impressions of form and design. Shadow puppets are free from the jerkiness of fist puppets and marionettes.

Some sort of frame will be necessary for a shadow screen. The screen may be made of an old white window curtain or tightly stretched muslin. Scenery may be cut out and pasted on the screen; or in case of an old window shade, the scenery may be painted on, as this is an excellent surface for all types of painting. Black show-card color will fill in the part that should be dark. For a black silhouette, paint both sides of the screen. Distant hills should be painted on one side only.

For illuminating the screen, use a lantern or an extension light placed about six feet directly behind the screen. Color can be thrown on the screen by placing a sheet of colored gelatin in front of the light.

The shadow figure is operated from below where the operator stands and talks for his figure. To prevent the figure from varying in size, it should be held close against the screen. Unlike the marionette that moves forward

¹⁰⁷ Efimova, *op. cit.*, p. 144.

and backward, as well as to the right and left, the shadow can move only to the right or to the left.

The shadow play is delightful for young or old. It has the advantage of requiring very little time to produce, the materials are inexpensive, and it is an artistic means of expression capable of adaptation to many school uses.

Recipes for materials previously referred to in this chapter are given below:

Gesso 108

2 TB varnish

12 TB glue

8 TB linseed oil

20 TB (rounded) whiting

Mix varnish, glue and oil and allow to stand. Mix whiting with water to the consistency of cream; pour into first mixture and cook ten minutes, stirring constantly. Pour into a bottle and cork tightly. Apply with a brush. Draw design. The surface must be left flat for twelve hours. A second coat may be applied for a higher design. When dry, rub with oil paint; three fourths ivory black, one fourth burnt sienna thinned with a little turpentine. When dry, add a coat of dull finishing wax.

Gesso is used for the raised design to give the appearance of carved wood, and a thick solution of it is used to model hands and feet on a wire foundation.

Gesso¹⁰⁹

If after finishing the marionette a very smooth surface is desired, an excellent way to produce this is to give the exposed parts, especially the hands and face, coats of a gesso finish.

Gesso is a finish composed of sheet or flake glue and whiting. Soak about one third of a cup of flake glue overnight, or about six or eight hours. Then heat and bring slowly to a boil. With a brush, give the object two or three coats of this glue mixture. Let it dry thoroughly. Then add a little of the whiting, keeping the mixture very thin. Brush the object with this. Then add a little more whiting. Repeat this process a few times until the desired surface is obtained. If a shiny surface is desired, finish with a coat of glue without whiting.

110

Gesso

A quick priming coat made of equal parts of whiting and LePage's glue gives a smooth surface, and one which can be made even smoother by an additional coat of zinc white oil paint.

109

Helen Fling, How to Make, Mold-Cast-Paint Marionette and Puppet Heads, p. 39.

110

Paul A. McPharlin, Puppet Heads and Their Making, p. 14.

111

Flour Paste for Papier-Mache

Mix two tablespoons of flour with cold water to the consistency of cream, add two cups of hot water, place over fire and stir constantly. Boil for two minutes. A few drops of oil of cloves will keep the paste fresh in hot weather.

112

Flour Paste

Flour paste can be made of one-half cup of flour and adding just enough water to make a thick paste. Gradually add two cups of boiling water, bring to a boil and cook for several minutes, stirring it until it becomes clear. When cool add a few drops of oil of cloves to preserve it, or to each pint of paste add two heaping teaspoonfuls of formaldehyde (poison) and one of powdered alum. Oil of wintergreen is a preservative for flour paste also.

113

Paste

A bag of wall paper or Fox paste procured at any hardware store serves as a good paste for papier-mache. Use only a small amount at a time, mixing with cold water to a paste of the consistency of mayonnaise. This paste costs little and will give better results if not allowed to become stale.

111 Bachelder, op. cit., p.83.

112 Fling, op. cit., p.41.

113 Ibid., p. 14.

If a small quantity of glue is mixed with the paste, one teaspoonful of glue to a teacup of paste, the resulting surface will be harder and stronger. Beat with a fork or spoon until very smooth.

Papier-Mache

- 1 cup Kalsomine (preferably peach, tan or brown)
- 1 cup modeling clay powder
- 2 cups water
- 1/4 roll of toilet tissue

Mix kalsomine, clay and water and work in toilet tissue, a sheet at a time, until the mass seems to pull away from the sides of the pan. Mix and knead. Cover with waxed paper and let stand one or two days before using. A few teaspoonfuls of flake glue mixture added when the papier-mache is ready for use will strengthen the finished product.

114

Papier-Mache

The basis of all papier-mache is old newspaper or other soft paper which has been soaked overnight in water and reduced to a pulp by running through a food chopper or rubbing on a washboard or between the hands. After the water is squeezed from the pulp, some adhesive is added to bind the

114

Batchelder, op. cit., p. 83.

mixture together. Commercial wallpaper or flour paste, liquid or casein glue (casein is hard on the hands) or casein paste are frequently used. The mass is kneaded thoroughly, with a little whiting added to prevent stickiness and to make a smoother texture.

Two cups of paper pulp to one cup of flour paste is a good proportion. A cooked mixture can be made as follows: Soak two ounces of dry newspaper strips in one quart of water and reduce to a pulp. Melt one cup of flake glue and one-half cup of water in a small saucepan. Add this to the paper mixture and boil forty minutes, adding more water if necessary. Gradually add one half cup of dry flour, mixing a little water from the paper and glue mixture to prevent its lumping. Cook twenty minutes more. After it has cooled, squeeze out the excess liquid. Weigh the pulp mixture and add an equal weight of whiting to it. Knead until well mixed and a good consistency for modeling. Place in a tightly covered jar.

When paper pulp has been soaked, ground fine, and the water squeezed out, the pulp can be stored in jars or tins for future use. The paste is not added until time to use the pulp; it will keep indefinitely without the paste.

Papier-Mache

Tea~~st~~, never cut soft paper such as paper napkins, toilet tissue, gift wrapping tissue, newspaper and paper

toweling into pieces about the size of the thumb nail and dip or smear in paste. These strips of paper are placed on the outside of a clay model or on the inside of a plaster mold, being careful to overlap the strips. Use six or seven layers of paper, alternating layers of different colored paper to help check on the number of layers. On the inside of the head, layers of thin cloth soaked in glue or strips of brown wrapping paper smeared with glue strengthen the papier-mache.¹¹⁵

¹¹⁵ Waldo S. Lanchester, Hand Puppets and String Puppets, p. 11.

CHAPTER IV

EVALUATION OF PUPPETS, MARIONETTES AND SHADOW PLAYS

In the last decade puppets have been discovered to possess not only possibilities for thrilling their juvenile audiences, but also untold potentialities for education and uplifting the young. "Punch and Judy must now turn pedagogue and solemnly enter the portals of learning. Perhaps they shed a few of their inimitable follies ere they cross the threshold."¹

School subjects can be vivified when woven into a puppet play, and many other supplementary arts and crafts as well, -- reading, in the selection of a story; language in adapting it into a play and later producing the play; mathematics, in measuring and planning for the stage and scenery, selling tickets, and the like. There will be research in history, costume design and perhaps geography. In costuming and in speaking for puppets, a sense of style and period can be developed.

The arts and crafts also come into their own. Hammers

¹ Helen Haiman Joseph, A Book of Marionettes, p. 3.

and saws, needle and thread, plaster, clay, wire, cloth, paint, glue, shellac -- what a wealth of medium for busy fingers! In rehearsing, so much can be emphasized -- manual dexterity and rhythm and diction, to say nothing of oral expression and music, and a sense of dramatic values, and cooperation between the children.

The varied activities of producing a puppet play give opportunity for every child to find himself. In a creative activity the child has opportunity of discovering what he is capable of doing. If he likes sculpturing, he can have the pleasure of fashioning and animating form. A writer, he can see his own plays performed. A painter, he will specialize in stage sets. A designer, he can originate wardrobes too spectacular for the human mold. A lighting enthusiast, he can work out effects without restrictions from an electrician's union. A musician will pore over rhythms, dances, and music adapted to puppets. The workbench devotee will feel pleasure in making an efficient stage to meet specific needs. "A puppet production calls for not only Jacks of all trades but Jills of all arts as well."²

Educators recognize that children are not to be shaped in a uniform mold. Everywhere there is respect for the individual, his interests, his ideas, his originality, and

² Sue Hastings and Dorcas Ruthenburg, How to Produce Puppet Plays, p. 6.

his personality. "The value to the child of creative learning and expression has been the keystone of modern education. It is the spark which vitalizes learning and develops the child."³

The opportunities for correlative and integrative work in the puppet play are as great, if not greater, than in almost any other form of work that can be taken up.

In the work of language the selecting of a story and its recasting in form for a puppet presentation provide excellent opportunity for expression that is spontaneous and highly motivated. The child is in the situation where he is trying to say something, not because the teacher has planned his response in advance as a drill, but because he wants it said in a way that will release his further activity. His speech is given meaning and purpose. If it is not well said, he may be induced to try again, or other children may say it for him. In either case, variation has been introduced upon which he is bound to react by acceptance or rejection. Language, to him, thus becomes conscious, in a situation where it makes a difference how it is expressed. According to Maude Owens Walters, "Real improvement in language never occurs, whether the individual be child or adult, apart from

³ J. Murray Lee and Dorris May Lee, The Child and His Curriculum, p. 538.

his striving for adequate expression."⁴ The big thing is to get the child into the situation where he wants to express himself and to use the situation as both generator and release of further expression. With something to say in adequate form, the motive for improvement is provided. The puppet provides need of adequate language for expression.

✓ Every phase of social life depends upon language. Very early the young child finds it necessary to use his common medium of expression and communication. As his experiences broaden and his contacts with others become more frequent, he finds need for a larger vocabulary, a more complex sentence structure and a longer unit of sustained thought to meet group life adequately.

✓ Another way of employing the puppet play as a means of teaching language is its use in providing topics for written paragraphs. Especially is this true in the upper grades. After the play has been given, such topics as the construction of the theater, the painting of scenery, construction of stage properties, making papier-mache heads and the like, are excellent for written work. They have the merit of being drawn from the child's own experience and of affording him opportunity to make this experience articulate.

⁴
Maude Owens Walters, Puppet Shows for Home and School, p. 54.

There is no greater lack, perhaps, in adult life than lack of ability to express in adequate language concerns of experiences. The extent to which the school is responsible for this lack cannot be accurately determined. It is certain, however, that practice by the school child in written work -- the subject matter of which lies outside his experience-- does not contribute in any considerable measure to the making of experience articulate. What it does do is develop in the child a feeling that composition is futile and meaningless. With an account of the play to be written for purposes of future record -- perhaps for next year's class or for the school paper -- the child is removed from a situation where written expression is a task with no meaning. His writing, rather, is for a purpose; he is furnishing next year's group with results of his experiences.

✓ A second correlative activity of the puppet play is the manual activity involved with its planning, measuring and constructing. Interest works both ways. On the one hand, the construction is done for the sake of the play; on the other, the play gains in meaning and significance because of the construction work involved. It is in this sense of relation of one part to another that manual work takes on its significance. The putting to use of the constructed theater in carrying through a puppet performance determines its sufficiency, or insufficiency, as a piece

of work and thus brings out its merits and defects. "Appreciation of merits and defects is the core of development of artistic sense."⁵ If the theater does not meet the need, changes are made, the changes being more indicative of the meaning of the work, and of the growth of artistic appreciation, than was the first construction itself. The learner is active; being prone to do something about a situation which is not as he would have it, challenges him to action. He acts upon the results of his own thinking. This gives a suggestion of what is meant by interrelation of manual work to the puppet performance.

Charles a McMurray states:

In recent years since so much oral work has been done in elementary schools, children have been encouraged also to express themselves freely in black-board drawings and in pencil work at their desks by way of illustrating stories. Moreover, in paper cutting, to represent persons and scenes, in clay and modeling, to mold objects presented, and in constructive and building efforts, in making forts, tents, houses, tools, dress, and in showing up modes of life, the children have found free scope for their physical and mental activities. These have not only led to greater clearness and vividness in their mental conceptions, but have opened out new fields of self-activity and inventiveness.⁶

Children need wider range in use of material in craft teaching in our schools and school education based on actual living experiences. Materials may be divided into three main classes: (1) the plastic; (2) the rigid;

⁵ Ibid., p. 76.

⁶ Charles A. McMurray, Special Method in Primary Reading and Oral Work with Stories, pp. 13-14.

(3) the pliable. Each class has not only its separate constructive possibilities but its individual appeal. For this reason every child should be made acquainted with the materials which represent each of these classes.

If advocacy for the use of a wider range of materials is justified, then there surely is no better means of stimulating the child's interest than by enabling him to become acquainted with the possibilities of all three classes, that are offered by puppetry.

This making of puppets brings into use practically all classes of materials. Construction is only one of the many profitable activities. The construction activity is a means, not an end. Rightly used in the schools, the art of puppetry is not only a means of training the craftsman, musician and actor, but it may also develop socialization of pupils.

Lee and Lee have this to say:

A unit consists of purposeful (to the learner), related activities so developed as to give an insight into, and increased control of some significant aspects of the environment; and to provide opportunities for the socialization of pupils.⁷

Too often socialization has been neglected in the attempt to further learning. There is, and rightly, the definite implication that learning and socialization should

⁷ Lee and Lee, op. cit., p. 192.

be simultaneous. The modern school believes learning to be a cooperative, social venture. Learning is associated with a very definite purpose, selected and recognized as worthwhile by the children because it is a vital part of their immediate life.

Children cannot always make satisfactory properties and costumes for their own performances, but they can make very effective ones for puppets. Again, it is not always considered best to let children appear very often in costume plays since it centers their thoughts on themselves; yet, there is a justified desire to portray the characters in stories as they really are -- as they really look -- objectively. Puppetry satisfies this desire.

Puppets have the advantage over the usual school play in that they afford greater variety of work, developing many-sided interests in the students, more general participation and a dramatic performance that does not require an expensively equipped auditorium with elaborate scenery and costly costumes. All the necessary materials needed will be found in a "glory box," and after being well treated with imagination, the puppet will be elaborately and appropriately costumed. More important even than these considerations is the educational advantage due to the fact that the student in the puppet activity has the opportunity of experiencing personally every angle of the whole creative

process and thereby retains a permanent power which is the result of organized thinking involving a complete activity. In contrast, the usual procedure in school dramatics gives the student an incomplete and unrelated part of the complete situation with the selection of a popular play. One aim is an entertaining imitation of a finished, polished production; therefore, the most talented pupils are selected for parts, so that they make a good showing.

The usual procedure, heretofore, has been the putting on of a play for a program. It was teacher-initiated, selected, taught, directed and evaluated. The result was a stilted, self-conscious performance with little meaning for the child. In some cases it was a really terrifying experience; in others, an opportunity to show off.

Let the final puppet performance be an honest humble affair with no attempt to impress the audience with its cleverness or professional finish. The final production is far less important than the learning process which gathers momentum as the work progresses. It is an ever-widening circle leading the student into inquiries of the history of the periods, the manner of speech, the social customs and dress. Every permanent interest in life is the direct outgrowth of human instincts or experiences which demand

8
Lee and Lee, op. cit., p. 577.

stimulation and satisfaction under competent guidance.⁹

The making and manipulation of puppets, marionettes and shadow plays will mean a busy life for the teacher and the students; but all will agree that life is far more adventurous during the experience, and the instructor will have started an educational inquiry into so many new and absorbing fields of information that the schoolroom will never have four confining walls again, since imagination knows no walls. The group will be living their history, their health, their literature, their art with such enjoyment that school time and leisure will merge, becoming one thrilling adventure. Then life is worth living and learning is a continuous adventure.

Dramatic forms have great potential educational value. Experience with children of all ages, of varied backgrounds, and of widely different mental capacities convinces teachers of the need for activities that take care of various levels of learning. All forms of dramatic action have universal appeal and inherent forces of growth for the children, but marionettes, puppets or shadow plays are the most practical for general use. The reason for selecting puppets lies in the varied scope that may be developed under all conditions, and with comparatively little expense.

⁹
Murphy, op. cit., p. 3.

The mere making of puppets or even the producing of a successful play is comparatively unimportant educationally, but the infinite variety of experience, the thinking, the investigating, the many creative powers put into action, the carrying through to a satisfactory conclusion, the sense of personal responsibility, and the cooperative spirit encouraged by a puppet activity -- that is education.

We believe that children can be happy in school, that education must be thought of in terms of growth and comes by experiencing rather than by mere learning, and that life does not begin when school ends but rather that school is life.¹⁰

Creative thinking and creative learning are necessary for teachers and pupils alike as they seek to produce certain desired results. The teacher and the students grow together toward a fuller experience, developing a comradeship that is one of the most valuable assets of the activity.

The show affords wide opportunity for expression and group activity of children. In it they work together, plan, construct, arrange, and express themselves. In the dramatization of the play, making puppets, arranging a stage and assigning parts, expression is given to their impulses and ideas; and in giving the play, there is expression to their emotional experiences. The beauty of it all is that the

¹⁰

Agnes De Lima, The Little Red School House, p. 5.

expression is so natural, and so spontaneous, and so little forced. So keen is the delight of children in the puppet play, and so great are its possibilities for expression in action and play of the imagination that it should be restored to childhood and made popular through the instrumentality of the school.

It hardly seems possible that such uninspiring things as lengths of dowel sticks, screw eyes, wire, and a few scraps of cloth could evolve into a successful actor, holding his audience, taking his bows and making his exits amid applause. It sounds like an old fairy tale come to haunt us with the lure of the fantastic and the impossible. And yet it is no fairy tale, no impossibility to those who have imagination and creative urge. The wire, the wood, the cloth may be brought to life through creative imagination and the unfagging interest of the student.

It is a strange thing that one of the most completely satisfying forms of dramatic performance should be that in which human emotions and actions are confined to expression through the medium of jointed doll's strings, strange that from such a close convention should come a sort of realism more convincing than actuality. There is something about the marionette so disarming as to silence criticism-- and of how many living actors can that be said? Alive, he is enchanting; in death, terrible; and when his strings are entangled, he is heart-rending.

"Puppets are people, little people, just as responsive as the mind and hand controlling them."¹¹ They can do many things so much better than humans. The puppet lends itself with ease to magic and unusual characters. Animals are quite as appropriate puppet characters as are human beings. Birds may fly across the stage with perfect naturalness; the whole atmosphere is appropriate for witches and fairies; and the transformations called for by magic are readily made. A great satisfaction is not in watching puppets perform, but in actually creating them; investing the doll at the end of the wires with life, the thrill of "telegraphing one's emotions down into the responsive little body."¹² More important than all these is the educational significance of puppetry.

Because of the concealed position, the possibilities for cooperation and initiative in doing whatever needs doing are unlimited. If Goldilocks happens not to have a good singing voice, some other child may stand near her and sing at the right moment. If Jack, in spite of his many other qualities, cannot cry convincingly, some lusty double may take over the responsibility.

11

Dana Saintsbury Green, Hours of Leisure; Puppet Making, p. 9.

12

Joseph, op. cit., p. 216.

Another fact of puppetry is that some children in a group never "let go" their voices until they are safely hidden behind the puppetry curtain. Fear and timidity leave because the puppet is doing the talking and not the child. In the puppet play the child is somewhat of an outsider and is detached. Behind the sheltering screen their restraint vanishes and the retiring shy child is able to give a performance equal to the best. Stage fright is banished, the children being only too eager to take part behind the scenes. For them it is a profitable and delightful object of endeavor. A successful performance is the result of good teamwork.

This distinctive feature of the puppet play for shifting of the center of attention, for both the child and the audience, from the child's performance is something gained. Where the child is conscious of himself as the actor in any performance, his consciousness tends toward one or two results. Either he becomes embarrassed and awkward, because of misplaced attention, or he becomes egotistical and showy. The first of these two is the less reprehensible, although the latter is too often applauded. In neither is the end for which the activity is undertaken attained -- the creation of a part, or character, wherein the self enters only incidentally as a means. This is not equivalent to saying a child should never be conscious of his acting or

performance. To be conscious of his acting, especially with reference to its improvement, and to be conscious of himself as actor are two quite different things. The one tends to improve performance, while the other spoils it.

Puppets, associated as they are with "make believe" and play activities, have an instinctive appeal to children.

Children are born actors. They all play with dolls, with a horse, a stick, a stone, a puddle in the yard. Out of almost nothing they make something. "To let children dramatize or give a puppet show is to give them absolute happiness, for while doing things they become really the character which they play."¹³

It is not merely to entertain, although that is an important factor, but in addition the puppet play must have a higher aim. Every activity must add something to the mental, moral, and spiritual growth of the child.

"Education must have its vital life blood, play, which is necessary to stimulate learning in the maximum development of the child."¹⁴

Edward Porter St. John says:

More and more in these days, the leaders of educational thought are coming to recognize the significance of nature's informal means of training her children.

¹³
Efimova, op. cit., p. 143.

¹⁴
Woutrina A. Bone, Children's Stories and How to Tell Them, pp. 60-62.

Modern psychology finds in natural play a more valuable means of education than any pedagogical device ever formulated by a professional teacher, and points out that it is such because it is nature's own, because it leads to expression of the mental and physical powers of the child and youth precisely as they mature, and in the exact ways that ages of racial experiences have shown to be most valuable to man.¹⁵

Through the several forms of dramatic play a good teacher will observe children and discover what they are capable of doing. Any activity undertaken by a child should be within his ability and level of accomplishment. Faced with a task impossible for him, the child reacts with frustration and avoids such situations in the future.

Learning is most likely to occur when the child has a definite purpose to accomplish, with reasonable assurance of his ability to accomplish it, with opportunity for recognition in its accomplishment and with knowledge of progress toward that goal.

Dramatic play as understood in the modern school is something quite different from the set type of dramatic performance. The emphasis is on the process of play, not on the finished result. It is not another subject added to the curriculum. Rather, it is another way of approach to the curriculum. There are no materials of drama that are worth while for children which may not also be materials

¹⁵ Edward Porter St. John, Stories and Story-Telling, p. 7.

already in the curriculum. It does furnish another and very vital approach.

Dramatic play is the living (so far as circumstances permit) of the child's interpretation of some one else's experience. When little children play, they feel that they really are the persons or animals imagined; and they experience, through their imagination, the very situations the characters are supposed to be experiencing. The older child recognizes that he is pretending to be someone else. However, when play is real, he still has a very personal understanding of the experience he is interpreting.

Dramatic play, whether through their own bodily activities or through puppets, is for every child. Some children naturally play imaginatively more than others. It is for those who are timid and self conscious or stolid and unimaginative that the school particularly has a responsibility. The retiring child must be given confidence and security so that he may feel free to express his thoughts and feelings. The occasional child who has had his own imagining discouraged and little basis for developing more, needs opportunity and encouragement. Play is the natural reaction of all children. It is not something they have to be taught.

16

Lee and Lee remind teachers that this is valuable,

¹⁶ Lee and Lee, op. cit., p. 56.

imaginative play is particularly neglected in the middle grades. Teachers are apt to feel that, since it is not work, it is a waste of time. All the pupils of this age need play as much as do the primary pupils. Although it takes a somewhat different form, it can be just as vital and important as at the younger level. Marionette, puppet, and shadow plays may be the type of activity that will be acceptable to the child at this time when he is developing a personal self-consciousness. He may be able to lose his own identity in another's more easily in this way.

People are being educated to not only a physical form of recreation, but also to the cultural and craft side. Puppetry is stressed as a definite part of the recreation of children by our recreation departments and their experts.

Those of us who believe that our children should become acquainted with the best that the past has handed down to us will see that the children with whom we come in contact shall make the puppet's acquaintance. Unfortunately, the opportunity to introduce them is all too rare; rare because puppetry today is only carried on by a few believers in the art.¹⁷

The field is clear for teachers and children with creative minds to develop the art according to their own

¹⁷ Lancheater, op. cit., p. 5.

particular tendencies.

In the scheme of education it may be said that puppets offer unrivalled advantage for the study of art, music, and the drama.¹⁸

The art of puppetry is undoubtedly the most logical introduction to the drama we have to offer our children today. Many community and civic theaters throughout the country have recognized this fact and have included puppet groups in their children's theater activities. Many schools have found the same thing true with their club groups. The puppet play has great capacity for realization of the theater as meaning, or totality, made up of story, players, and stage or playhouse. It familiarizes them with the traditions of the theater by letting them act as their own playwrights and producers.

The interest can spread throughout the family and even into the neighborhood. When such an activity gets out into the community, it has served a double purpose; for in addition to the educational advantages, it solves the problem of what to do in leisure time. The school also benefits through publicity received from such a worthwhile endeavor, and who will challenge the statement "schools need better public relations!"

Leisure activity today is fast becoming commercialized.

¹⁸ Ibid., p. 5.

We pay to be entertained. It is much more profitable for us from many standpoints if we make our own happiness. "No activity can have more all-round value for the individual than frequent adventuring into creative fields."¹⁹

"An average amount of versatility of play activities seems to go with many of the desirable traits of personality."²⁰ There is a definite feeling that not only does the person's reaction to other people determine his personality but likewise the reaction he stimulates in them. The aim of the school is to develop well adjusted children with integrated personalities.

The arts develop personality just as any other successful, shared experience into which the child enters wholeheartedly. Besides this there is the special value in particular cases of furnishing the means for adjustment. The literature is full of "problem cases" who found a satisfactory means of expression through the creative arts. "Drawing, painting, and modeling have so far proved most helpful in these cases,"²¹ but with adequate teaching there is no reason why other creative activities should not be valuable, except perhaps that their techniques are more difficult and give less satisfying results. "Creative writing ranks next

¹⁹Lee and Lee, op. cit., p. 539.

²⁰Ibid., p. 542.

²¹Ibid., p. 576.

to art, or perhaps on equal footing with it, as a factor in resolving personality difficulties."²² If, then, there are real opportunities in the classroom for free self-expression in creative art -- modeling, drawing, painting and creative writing -- all of which the puppet play offers, the teacher has a powerful tool for integrating personality. Gordon Melvin states that the primary goal for education for both learner and teacher should be "to make human personality."²³

The activity outlook is democratic in its regard for personality; in its preference for human personality over subject-matter-to-be-learned. The modern child-centered school illustrates the enduring principle that "good schools are made not by books, bricks and gadgets but by the intelligence, imagination and courage of its teachers."²⁴

We must teach our children to make satisfactory friendships, to share in various group plans and enterprises, to make their friendships, to make their individual contributions to the group efforts, and to work cooperatively side by side with people of different personalities,

22

Lee and Lee, op. cit., p. 576.

23

N. Gordon Melvin, The Activity Program, p. 260.

24

Horrall, Codone, Wilson, Rhodes, Let's Go to School, p. 22.

different races, different creeds and different economic and cultural backgrounds. "If the school can do these things for children, it is educating them to function in and to make a democratic world."²⁵

Consideration of a program of living and learning early calls for attention to group life. Any effort to guide learning must hold this fact basic. Puppetry promotes this type of life that furthers shared living. As this group living develops, it conditions the learning that takes place. Interaction of the individuals in the group with each other should be a significant part of the work. Each child has a responsibility for his part of the puppet play in proportion to his ability, for the good of the group. The fact that the children share with each other, that they stimulate each other, and that they plan and work for a final production of the play as a whole, contributes to the resulting learnings and makes for democratic living.

Originality is a most important consideration in creative work. In puppetry the child has ample opportunity to make his own choices of materials, colors, designs and mediums of expression to further its educational value.

Children should be allowed to express their own feeling in color. Refinement of color taste can be developed in

²⁵Agnes De Lima, op. cit., p. 238.

scenery and costume design. To let the child express his color feeling even though it may be crude, and to lead him gradually to a finer feeling is an important work of the school. Color plays such an important role in human life that all children should be helped to enjoy color and to know how it can be used to excite, to calm, and to express their feelings and personality. Teachers recognize that many children in their groups have few opportunities to experience the richness and color of life aside from those they meet at school.

There is, of course, no substitute for work that children do themselves. To quote Agnes De Lima, "Learning takes place through doing rather than through any purely intellectual process."²⁶ The physical world and its proceses, the social world and its processes, the work of the world and its processes, the world of ideas, meaning and traditions are all involved in a well-balanced puppet play. The end results of these co-working, sharing groups are superior to the product of any one individual working alone.

The value of any activity, whether of school or civic nature, may be measured by the amount of individual thought, work, talent and good fellowship contributed to the working out of a worth-while end. A child must be stimulated in

²⁶ Agnes De Lima, op. cit., p. 184.

such a way that he will assume the initiative in much of the learning activity. A very simple motive satisfies children: a puppet show for which there would be no audience, save the children themselves, would serve the purpose. Since most of the values of dramatic play come from the child's participating in it, there is little need for audiences other than his own class. The greatest value would be in the preparation of the show rather than the show itself. If, in the end, the work is good, then one of the most natural rewards is that the successful pupils be given a chance to show their attainments to their fellow school-mates or to their parents. It may be that occasionally the children will feel that they have something so interesting that they must share it. Occasional appearance before a larger group in a situation where they have considerable self-confidence is good. The constant practice of preparing a play for some one to see changes the point of view of the children. Other values come in. They look for outside commendation, and instead of doing the show the way they themselves feel it should be done, they are apt to think of how those other people will want them to do it. They lose a sort of integrity of purpose that they could otherwise maintain.

The puppet show remains an educational factor only so long as it keeps for its main purpose the development of

children. Its entertainment features are secondary. One of its greatest values lies in the discipline it affords in the correct use of language and materials. All craft experiences call for discipline, not the kind that is imposed by the adult but a discipline that lies within the material and process, the discipline that is exacted by the necessities of a social situation, the discipline that is inherent in the act of attacking and carrying out a purposeful and significant undertaking.

"Properly developed, group consciousness can come to be a definite factor in control of the conduct of each individual in the group."²⁷

The puppet show is the child of the people largely because of its adaptability to space and occasion. It can be packed into a suit case or expanded to fill an express car and it can be operated by one person or by a hundred. It is at home before a pleasant fireplace, on a village street corner, at a country fair, or in the palace before an assemblage of kings. Puppets can rise to the height of tragedy, evoke tenderness and sympathy. They are infinitely more capable of acting than live actors -- of creating an atmosphere of mystery, wizardry, and magic. There is in puppetry a delightful challenge to the creative and dramatic

²⁷

Mossman, The Activity Concept, p. 3.

instinct of all ages -- from five to fifty.

The shadow play guides the child to see in life and choose from it such beautiful impressions as may in time of stress, even of danger, strengthen him. "Once you enter the world of shadow play you don't want to leave it. Those who assured us that children need only the movies are badly and grossly mistaken. Silent shadow pictures pleased them exceedingly."²⁸

It is not at all difficult to make a shadow play if one knows what the requirements are. The first requirement of a shadow play is that the story shall have action. The second requirement is a dramatic plan or problem. This is necessary in order to hold the attention of the audience. The third requirement is the selection of the most important and interesting characters in the play. Since the success of a shadow play depends largely upon interesting and beautiful silhouettes, each character must have individuality.

No two silhouettes should be alike in appearance or size. The artistic setting of the shadow play should be very simple and suggestive and help to tell the story.

Nursery rhymes and fables, folk and fairy tales are delightful materials for cut-out shadow plays. They are vivid, humorous, and fanciful. They are full of direct conversation which can be carried on by the puppeteers behind the screen or by a reader in front of the screen.

Bible stories can be turned into beautiful shadow plays and give opportunity for expression and dramatic interpretation.

Recently, cut-out shadow figures have found a rival. This has come about through the growing appreciation of the dramatic possibilities of the human shadow figures. Modern lighting has done much toward this end, because it has made possible a clearly defined silhouette on the shadow screen. The art of the human shadow is not limited. It uses acting, dancing, music, the voice and color. With a sense of design and arrangement, a beautiful picture is created before the audience by every movement. The human shadow play is a new challenge to imagination, taste and ingenuity.

Shadow plays are free from the jerkiness of marionette gestures, whose construction compels them to drop their limbs heavily downward. The rod and human shadow play have a beauty of life that the puppet cannot capture.

Boys and girls who have originality, a gift for creative writing, a talent for creative art, and a feeling of the need of beautiful expression will find great pleasure in making their own shadow plays. The writing can be done either in prose or verse. They can do this easily if they keep in mind the requirements -- action, dramatic interest, individuality of characters, and a simple harmonious setting.

CHAPTER VI

SUMMARY AND CONCLUSIONS

The conclusions reached are the results of a study of the history, construction, and function of puppets in the elementary curriculum of the modern school as a tool for developing the whole child. A diligent search has been made into the writings and creations of numerous authors with the object of ascertaining the results of their experiments and experiences, and of considering their attitudes and opinions concerning the place and purpose of puppetry in the elementary school. The data from actual classroom procedure and personal interviews with elementary teachers have given direction and impetus to this creative form of activity and study of basic educational values to be found in puppets.

After this study, the writer feels that the evidence justifies the following conclusions:

1. From earliest history, on down through the ages, puppetry has played an important part in motivating the thoughts of people.
2. Puppets fit into our modern elementary school

curriculum because they help create an environment that stimulates fuller development.

3. Puppets release children's power of creative self-expression, cultivate habits of critical thinking, develop the ability to meet new situations and expand the opportunity to develop the important characteristics of responsibility and dependability.

4. For the elementary grades, puppets play a definite part in enriching and supplementing classroom instruction, and adding joy, pleasure and entertainment.

5. If the elementary child is guided properly, a puppet theater will lead him into unknown fields of interest and will cause formal classroom subjects to be less boresome.

6. Boys and girls demand "something doing;" if a lesson is to be taught, it must be put in terms of life. It takes life to influence life, and life is action. Puppets, with their life-like qualities, are one of the best instruments used to stimulate classroom activity.

7. A puppet theater gives the child an appreciation of music, art, and literature and helps him to distinguish between the good and the bad.

8. Scenery, stage setting, costuming, lighting and the dolls of a puppet production help develop an appreciation of

and desire to seek, beauty in its many manifestations.

9. Along with the child's artistic ability being developed in a puppet activity, the social and individual attitudes are influenced by cooperating in a group activity.

10. Construction and producing of puppet plays, when rightly guided, encourage unselfishness, imagination, cooperation, justice and understanding.

11. Through a process of completing a puppet play, the children recognize the importance of cooperation; their imaginations have been stimulated, their powers of observation have been increased, and have been given ample opportunity to share experiences.

12. Through this form of creative activity, a child learns to make personal evaluations of himself and his classmates; thereby cultivating a sympathetic understanding and consideration for others in group living.

13. This form of play furnishes an excellent learning situation, for through its avenues can be brought experiences, information, creative thinking, judgments, and facts related to a unified whole.

14. Responsibility in proportion to the ability of each child, for the good of all, is a necessary factor in accomplishing a well-rounded puppet show; thereby giving opportunity to develop democratic ideals.

15. A group activity outlook in a puppet show is democratic in its regard for personality, its biological psychology, its preference for human personality over subject matter, its success in bringing creative and happy growth to pupil and teacher alike.

16. Controlling a puppet, especially a marionette, leads to rhythmical tendencies in children and an emphasis on body control. Children find satisfaction in rhythmic expression.

17. Writing and producing the play develop the ability to organize ideas clearly and forcefully. The children learn to express themselves naturally, in good English and improve their ability to speak clearly.

18. Re-living and re-experiencing good literature inspire children to continue refined cultural reading.

19. The hidden position of puppeteers alleviates the pangs of self-consciousness and tames down the show-off as well.

20. Puppet plays, through auditorium programs, can be a force to unify and integrate the school.

21. Staging a puppet show allows opportunity to explore several crafts to discover those which interest the child and those to which he is adapted. Society is enriched by differences of talent, interests and skill

of its people, the school should serve to cultivate rather than level these differences by varied experiences. The making of puppets helps the child to acquire the skills and techniques for carrying on handicrafts that interest him.

22. Crafts fill an actual utilitarian need as well as provide an outlet for stored up energies and emotions and are an agency for decreasing mental strain.

23. Puppetry is an activity that develops an insight into mechanical processes that go into the properties of everyday life -- a means of providing actual experiences in using basic processes.

24. An activity program creates in the child satisfactions in using his leisure for creativeness as well as for amusement and enjoyment.

25. The powers of observation are increased through the use of puppets.

26. When teacher and children together find some common worth-while interest, that has sufficient breadth and depth to hold their attention for a considerable time, the individual is more likely to be working up to his capacity in order to accomplish results that are worthy of him.

27. Growth is more rapid and wholesome if children have a participative share in planning and assuming

responsibility for the work of the group. Puppets give a release for this energy in a fruitful direction.

28. Through a puppet activity the child learns about work and to respect workers, because he experiences work in the form of thinking, feeling, planning, experimenting, creating and testing.

29. Plays teaching a lesson may be presented by marionettes and be much more effective and impressive than if the same material is presented by the teacher.

30. Education has need of theory and practice united in an integrated whole, and this is the basic justification for a puppet activity in the school.

Finally, because of children's delightful interest or natural love for puppets and dramatization, and in consideration of their unbounded possibilities, the writer of this study joins the hundreds of progressive educators in heartily recommending puppetry for an indispensable place in the teaching and guidance of the child in the progressive elementary school.

BIBLIOGRAPHY

- Ackley, Edith Flack, How to Make Marionettes, New York, Gosset and Dunlap, Inc., 1936.
- Ackley, Edith Flack, Marionettes Easy to Make, Fun to Use, New York, Frederick A. Stokes Co., 1929.
- Batchelder, Marjorie, The Puppet Theatre Handbook, New York, Harper & Bros., 1947.
- Boehn, Max Von, Dolls and Puppets, London, G. G. Harrap and Co., 1932.
- Bone, Woutrina A., Children's Stories and How to Tell Them, New York, Harper Bros., 1943.
- Bufano, Remo, Be a Puppet Showman, New York, The Century Book Co., 1933.
- Bufano, Remo, Magic Strings, New York, Macmillan Co., 1939.
- Bufano, Remo, The Show Book of Remo Bufano, New York, Macmillan Co., 1941.
- De Lima, Agness, The Little Red School House, New York, Macmillan Co., 1942.
- Efimova, Nina, Adventures of a Russian Puppet Theater, Birmingham, Mich., Puppetry Imprints, 1935.
- Flexner, Marion, Crane, Alice and Clark, Dorothy, Hand-Puppets, A Practical Manual for Teachers and Children, New York, Samuel French, 1935.
- Flicker, Bessie A., A Handbook of Fist Puppets, New York, Frederick A. Stokes and Co., 1935.
- Fling, Helen, How to Make Marionette Hands-Feet-Legs-Arms-Bodies, New York, Treasure Chest Publications, 1937.
- Fling, Helen, How to Make, Mold-Cast-Paint-Marionette and Puppet Heads, New York, Treasure Chest Publications, 1937.

- Fling, Helen, Marionette Show Production, New York Treasure Chest Publications, 1937.
- Fling, Helen, The Construction of Marionette Controls, New York, Treasure Chest Publications, 1937.
- Green, Danna Saintsbury, Hours of Leisure - Puppet Making, New York, The Studio Publications, 1935.
- Hastings, Sue, and Ruthenburg, Dorcas, How to Produce Puppet Plays, New York, Harper and Brothers Publishers, 1940.
- Higginbotham, Christine, Puppets for Pleasure and Profit, Dallas, Dealey and Lowe, 1936.
- Horrall, Albion Harris, Let's Go to School, New York, McGraw-Hill Book Co., Inc., 1938.
- Joseph, Helen Haiman, A Book of Marionettes, New York, Macmillan Co., 1935.
- Lanchester, Waldo S., Hand Puppets and String Puppets, Peoria, Ill, Macmillan Co., 1932.
- Lee, J. Murray, and Lee, Doris, The Child and His Curriculum, New York, Century Co., 1940.
- Marshall, Frank, Puppets, Ventriloquist Punch and Judy Marionettes, Chicago, New Era Press, 1931.
- McIssac, F. J., The Tony Sarg Marionette Book, New York, The Viking Press, 1935.
- McMurray, Charles A., Special Methods in Primary Reading, and Oral Work with Stories, New York, Macmillan Co., 1903.
- McPharlin, Paul A., A Yearbook of Puppets, Birmingham, Mich., Puppetry Imprints, 1931.
- McPharlin, Paul A., A Yearbook of Puppets, Birmingham, Mich., Puppetry Imprints, 1932.
- McPharlin, Paul A., A Yearbook of Puppets, Birmingham, Mich., Puppetry Imprints, 1933.
- McPharlin, Paul A., A Plan for a Folding Stage -Adaptable, Birmingham, Mich., Puppetry Imprints, 1934.

- McPharlin, Paul A., A Repertory of Marionette Plays, Birmingham, Mich., Puppetry Imprints, 1929.
- McPharlin, Paul A., Exhibition of Puppets and Marionettes, Birmingham, Mich., Puppetry Imprints, 1933.
- McPharlin, Paul A., Marionette Controls, Birmingham, Mich., Puppetry Imprints, 1934.
- McPharlin, Paul A., Puppet Heads and Their Making, Birmingham, Mich., Puppetry Imprints, 1936.
- Melvin, A. Gordon, The Activity Program, New York, Reynal and Hitchcock, 1936.
- Milligan, David Frederick, First Puppetry, New York, A.S. Barnes and Co., Inc., 1938.
- Mills, Winifred H., and Dunn, Louise M., Marionettes, Masks and Shadows, Garden City, N. Y., Doubleday, Doran and Co., 1927. ✓
- Mossman, Lois, The Activity Concept, New York, Macmillan Co., 1938.
- Munger, Martha Ferrine, and Elder, Annie Lee, The Book of Puppets, Boston, Lothrop, Lee and Shepard Co., 1934.
- Murphy, Virginia, Puppetry, An Educational Adventure, Concord, New Hampshire, The Rumford Press, 1934.
- Nelson, Nicholas and Hayes, James J., Trick Marionettes, Birmingham, Mich., Puppetry Imprints, 1935.
- Perry, Evadna Kraus, Art Adventures with Discarded Materials, Los Angeles, Calif., Wetzel Publishing Co., 1933.
- Petty, Emma, The Puppet as an Elementary Project, Fort Worth, Texas, The Pioneer Publishing Co., 1925.
- Ransome, Grace Greenleaf, Puppets and Shadows, Boston, F.W. Caxton Co., 1931. ✱
- Reighard, Catherine, Plays for People and Puppets, New York, E. P. Dutton and Co., 1928.
- Russell, Jan and Hogarth, Ann, Marionettes, Ditchling, Sussex, Pepler and Sewell, S. Dominic's, 1934.

Rugg, Harold and Shoemaker, Ann, The Child-Centered School, Chicago, Ill., World Book Co., 1928.

Schoencher, Gustav A., The Activity School, New York, Longmans Green and Co., 1940.

Scifer, Margaret K., With Puppets, Mimes and Shadows, New York, The Furrow Press, 1936. ✕

St. John, Edward Porter, Stories and Story-Telling, Chicago, Ill., The Pilgrim Press, 1918.

✓ Warner, Frances Lester, The Ragamuffin Marionettes, Boston, Houghton-Mifflin Co., 1932.

Wilkinson, Walter, Puppets Through Lancashire, London, G. Bles, 1936.

Zyve, Clair Turner, Willingly to School, New York, Round Tables Press, 1934.