

MINNESOTA 4-H DAIRY

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GOAT

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PATTERN



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GOAT

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Special thanks to the Minnesota Dairy Goat Association for funding this pattern and to Margaret Lonnquist, Minnesota program assistant, 4-H Youth Development, for assisting with the development of the pattern.

Advantages the Model Dairy Goat Offers

The model dairy goat has proved to be a valuable training aid for 4-H project leaders, extension educators, vocational instructors, and classroom teachers. Having a realistic aid available for participants offers a tremendous advantage over lectures, audiovisuals, or even live animals. In many instances the availability of real animals, the time of year, the weather, the trauma caused to the animals and participants, and several other factors may interfere with the learning outcomes desired. In most instances, each of these factors can be controlled when a realistic model is substituted for the live animal.

By using the dairy goat model made from this pattern, participants have learned the following dairy goat management skills:

- Identifying breeds
- Identifying parts
- Recognizing faults
- Judging terminology
- Taking temperatures
- Administering medication
- Assisting in delivery
- Milking procedures
- Telling age
- Treating external and internal parasites
- Caring for the newborn
- Saving a weak newborn
- Castrating
- Tattooing
- Dehorning
- Removing extra teats
- Fitting and showing

From a 4-H perspective, the model offers additional opportunities for project leaders to help members develop life skills as they are learning the various project skills outlined. Examples of life skills which well-

planned 4-H project experiences can help develop in members include abilities to:

- Work together
- Think creatively
- Take risks
- Express themselves
- Use knowledge
- Develop self-esteem
- Solve problems
- Make decisions
- Give praise
- Ask questions

How successful the project leader is in allowing members to develop these important life skills will depend to a great extent on the planned opportunities provided throughout the learning experience.

Hints for a Successful Learning Activity

One method which 4-H leaders and members enjoy is popularly referred to as "Learning By Doing Before Being Told or Shown How." This experiential method allows the leaders maximum opportunity to assist the members in their learning efforts without imposing their answers on the members. The key steps in the process are:

1. Divide the 4-H'ers into teams of two to five members.
2. Make supplies available.
3. Provide the 4-H'ers with a realistic situation and task to respond to.
4. Step back and allow the members time to discover their own solution.
5. Respond to 4-H'ers questions and concerns with questions so the answers are their own.
6. Listen to the members' presentations.
7. Accept their solutions.
8. Ask questions to help them build on what they presented.
9. Reinforce their efforts with praise.

Instead of the traditional approach of "you do as I do" which tends to seriously reduce the opportunity to develop many life skills, this method allows members to discover for themselves what they need to know to do the activity. Teachable moments tend to come much more often as the leader serves as a helper instead of an upfront teacher. The result is a session in which the members build on what they know with guidance from the leader.

Examples of Situations and Tasks

Providing the teams with a situation and task is a way to quickly obtain the teams' attention and to involve them as indicated in step 3. The situation and task need only be one or two sentences. Some examples of situations and tasks are:

Telling a Dairy Goat's Age

Situation: Your neighbor asks you to help him determine the age of several new dairy goats he purchased.

Your task: Demonstrate how you will tell the different ages.

Taking a Dairy Goat's Temperature

Situation: One of your dairy goats is sick. You call the veterinarian who asks what the goat's temperature is.

Your task: Demonstrate how you'll take the dairy goat's temperature.

Administering Medication

Situation: The veterinarian prescribes a combiotic shot for your sick animal.

Your task: Demonstrate your procedure for giving the shot.

Tattooing

Situation: You are given the opportunity to tattoo a new kid.

Your task: Demonstrate how you'll tattoo it.

4-H members will enjoy the opportunity to work together to solve the task their way and to show others what they did. Although the model dairy goat is not essential to the success of this method, the realism it will give to each team's efforts will add significantly to making the session a success.

Additional animal patterns are available.

Description

The finished kid is approximately the size of a large newborn. When stuffed with Styrofoam pellets, it has the limp characteristics of a newborn. This pattern is adaptable to any dairy goat breed. Although a Nubian head was used as a model, different shapes of ears and ear placements can easily be made to suit individual preferences.

Features include:

1. open mouth
2. plastic tube attached to the back of the mouth and extending into the stomach to be used for inserting a catheter tube
3. removable umbilical cord

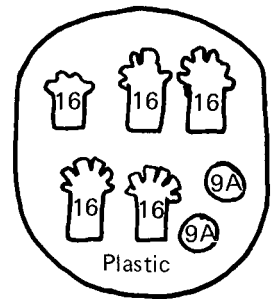
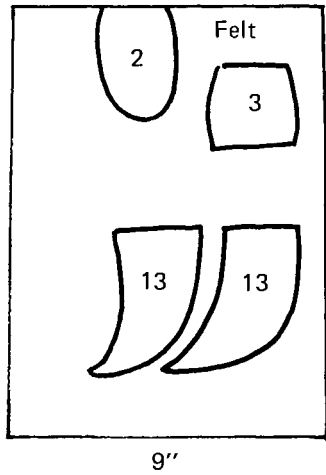
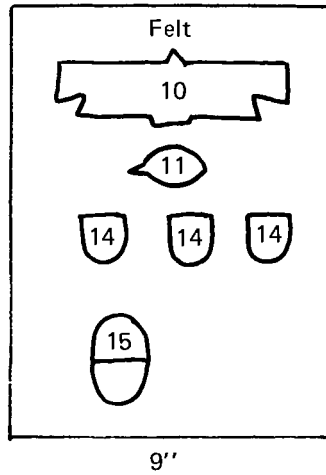
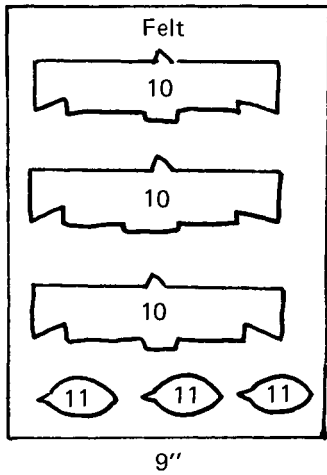
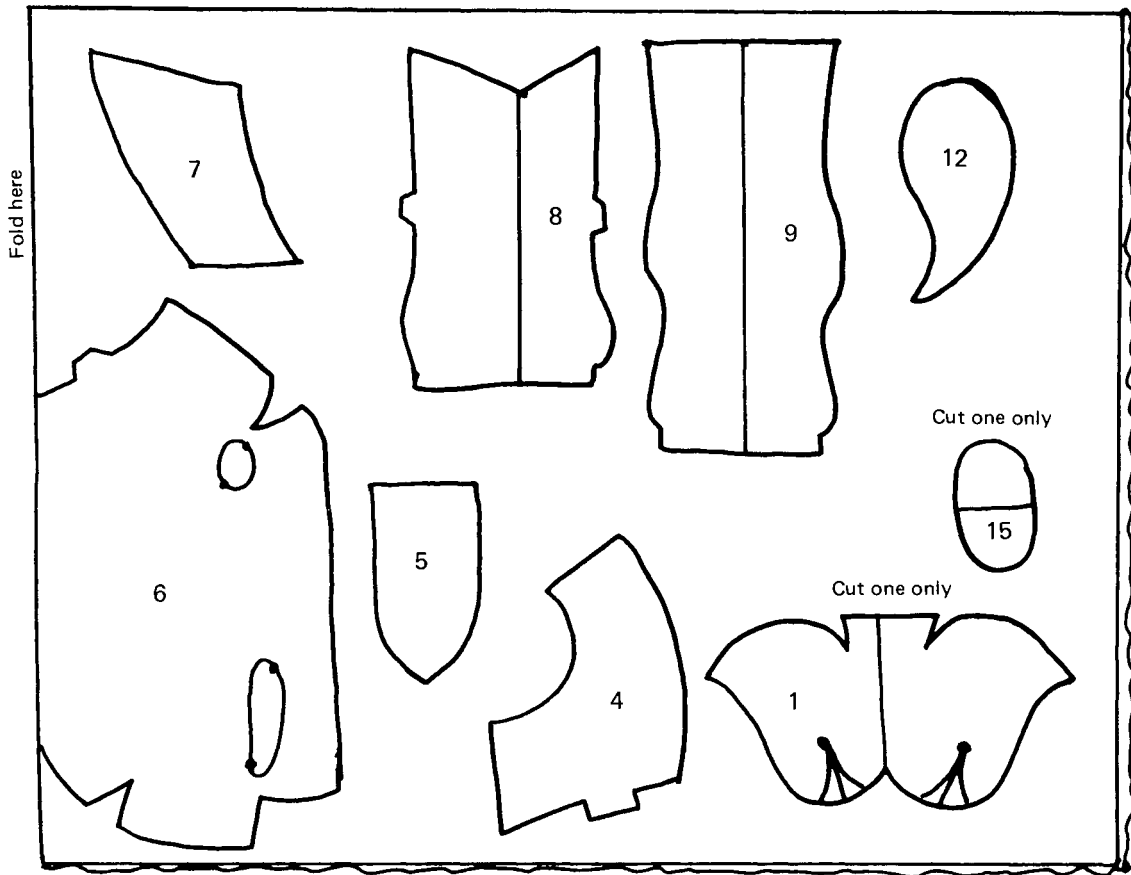
4. removable scrotum with a Velcro opening and simulated testicles for castrating
5. removable horn buds for dehorning
6. plastic tubing attached below the tail for inserting a thermometer
7. separate head and neck pattern with mouth to make a hand puppet which can be used by a 4-H member to indicate a sucking response and as part of a puppet show to present information
8. teeth to insert in mouth for age determination
9. three teats: two permanent and one removable extra teat

Cost and Time

The cost of materials is approximately \$10. It takes about eight hours to construct the kid.

Materials Needed

- two-thirds yard of fake fur fabric 58 to 60 inches wide
- pink felt for the mouth
- colored felt for the ears which matches fur used on ears
- two 9" x 12" craft squares of black felt for feet and a small piece of colored felt for teats and scrotum to match fabric
- small scraps of lightweight fabric for patches to hold the kneecaps in place
- one pound of polyester fiber batting or one gallon Styrofoam pellets for stuffing and about 30 cotton balls for filling in the tail and toes
- two shank-type buttons or plastic eyes
- sewing threads to match the colors of felts
- one inch Velcro strip for attaching and opening the scrotum
- two 3/4-inch Velcro circles for attaching the horn buds
- two small beads for simulating testicles
- twenty inches of 1/4-inch in diameter or larger plastic tubing. The tubing is used for inserting the catheter tube (16-inch piece) and the thermometer (4-inch piece)
- small pieces of heavy cardboard or plastic for kneecaps
- one yard of pink yarn or crochet cotton for the umbilical cord
- two snaps for attaching the umbilical cord and extra teat
- one-half yard of bias tape for the bottom of the hand puppet
- white plastic lid or equivalent for teeth
- one yard of strong cord for turning teats inside out



Cutting Directions

1. Remove pattern pages from book. Cut out the paper pattern pieces or trace pattern pieces onto non-woven interfacing.
2. Stroke the fur to determine the grain. The correct direction will feel smoother. Fold the fake fur in half with the right sides together. Follow cutting layout.
3. Cut out teeth from plastic. Cut out teats, feet, mouth, and two ear linings from felt.

4. Cut out two kneecaps from plastic or heavy card-board.

Marking Directions

1. Mark dots with tailor's chalk or tailor's tacks.
2. On right side of fabric, baste along solid bold lines marked on pattern pieces 1, 4, and 6.

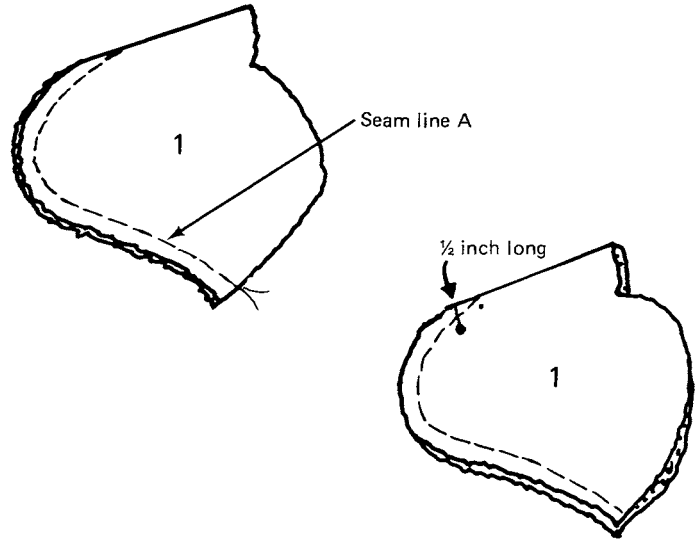
*Pattern pieces 12, 14, and 15 use felt of the same color as the animal body.

Sewing Instructions

Use a 3/8-inch seam allowance except where indicated.

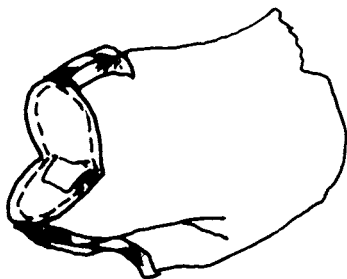
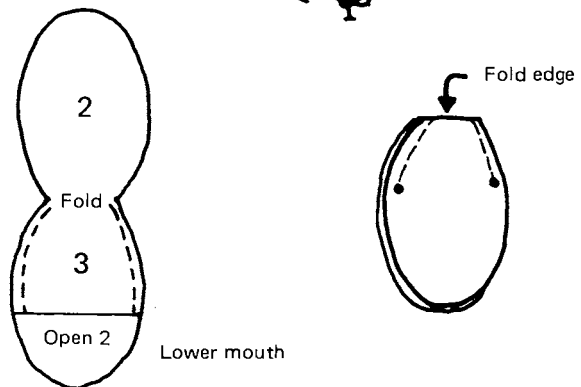
Step 1. Head and Mouth

1. Pattern piece 1. Fold along fold line/center front with right side in. Stitch along seam line (A).
2. Match small dots to medium dots and stitch a 1/2-inch line across the center front. This makes the line of the kid's nose.



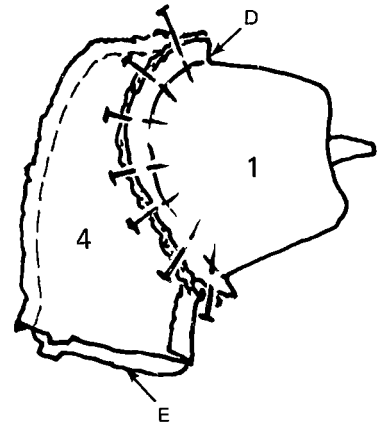
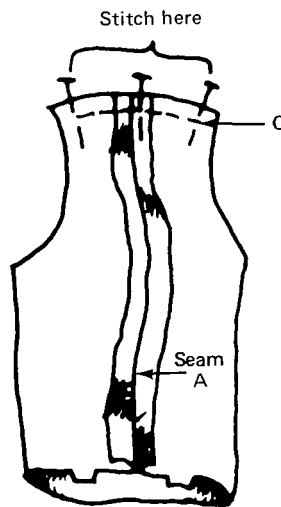
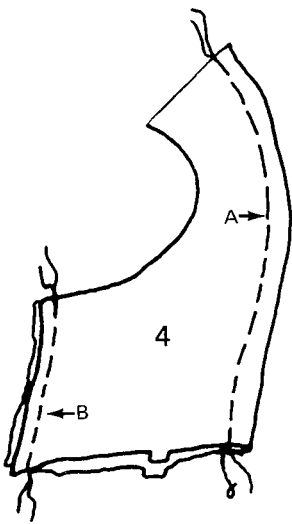
3. Mouth

- a. Pattern piece 1. Match small dots of the dart and pin. Stitch the dart to the large dot. Do not clip away excess fabric between the folded edge and the dart seam. Hold it up toward the nose and attach it to the seam allowance with hand stitching. This creates an extra thickness which is visible from the outside as an upper lip overhang.
- b. Pattern pieces 1,2, and 3. Cut along the center darts to both large dots. Trim the seam on the upper mouth opening to 1/4-inch. To make the pocket for teeth, sew tooth pocket (3) to lower mouth section at fold line. Leave other end open. Fold mouth pieces together and stitch mouth (2) from fold to dot.
- c. Open mouth and pin to mouth opening in face with right sides together. Stitch seam. Be careful not to catch the back part of the mouth in the seam. Turn the face right side out.



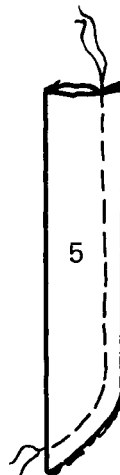
Step 2. Neck and Top of Head

1. Pattern piece 4. With right sides together, stitch seam line (A) and (B).
2. With right sides together, stitch along the seam line for the center top of the head.
3. With right sides together, pin along seam line (C) between the large dots and attach the top of the head to the face at the forehead. Machine stitch.
4. With right sides together, pin the neck to the face at seam line (D) so seam matches large dot. Machine stitch. Turn the piece right side out.
5. Attach the eyes.
6. This step is optional for a small to medium sized hand puppet head. Bind the bottom of the neck edge (E) with bias tape.
7. To make a larger hand puppet head use pattern pieces 1P, 2P, 3P, 4P, 12P, and 13P marked puppet. Follow the same directions as described in steps 1 and 2. Add ears according to description under step 9.

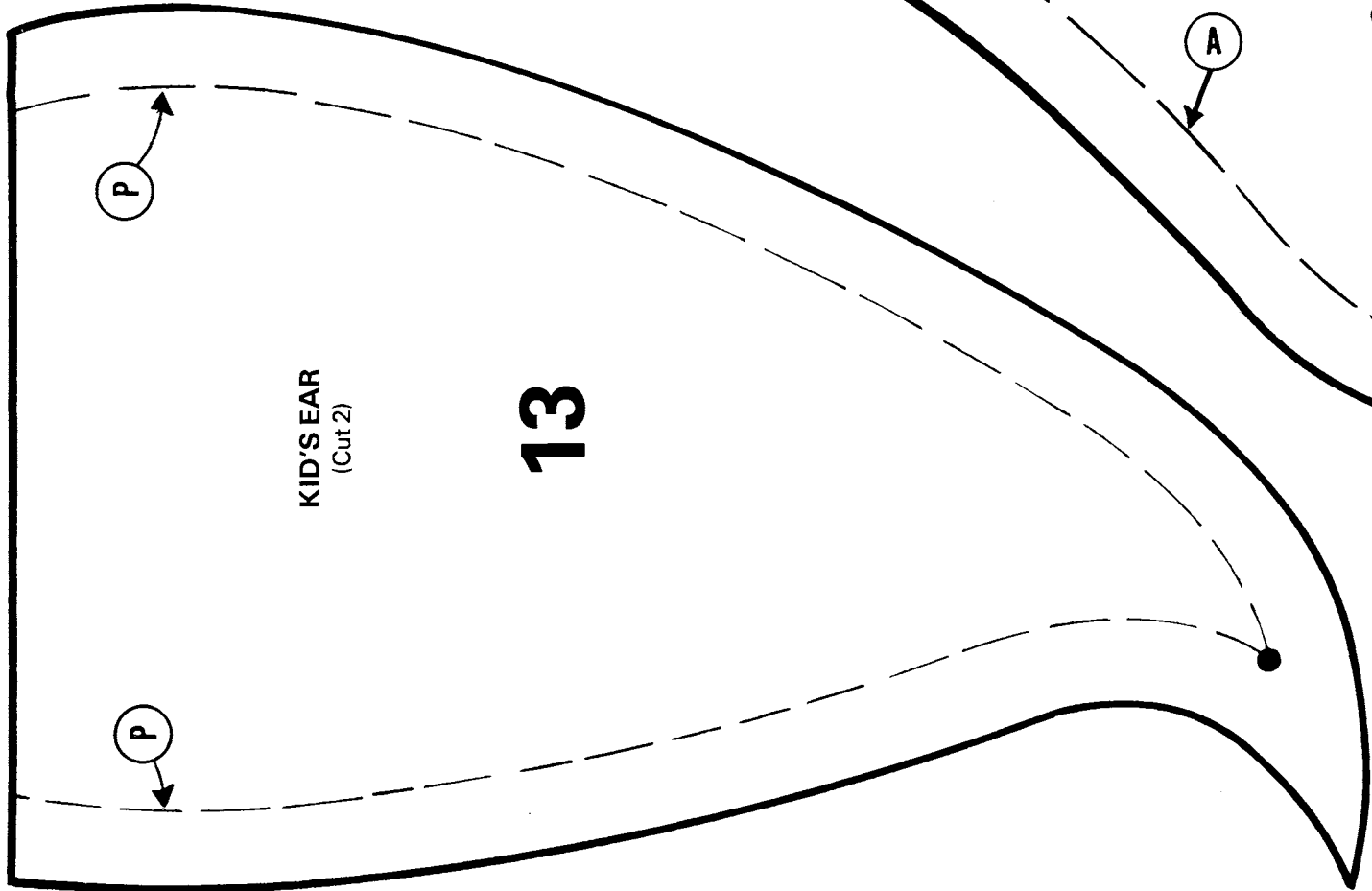
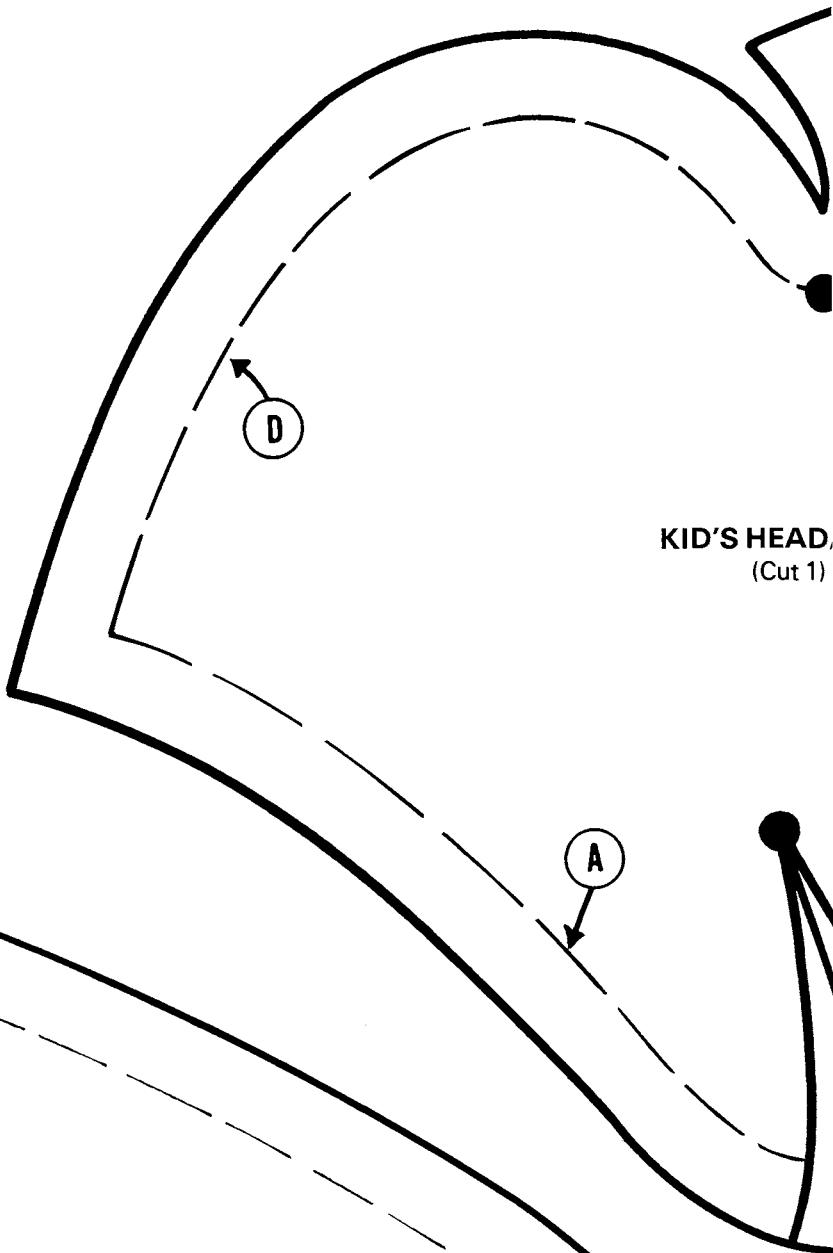
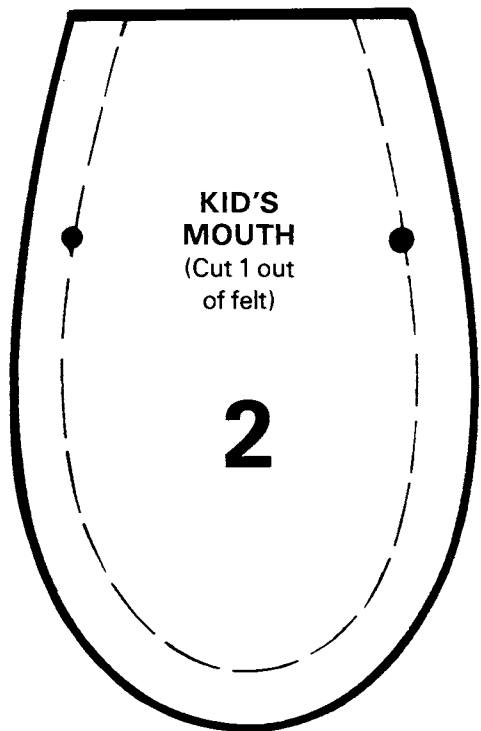


Step 3. Tail

1. Pattern piece 5. Fold the tail in half and stitch. Turn it right side out.
2. Stuff tail firmly only to seam allowance using cotton balls.

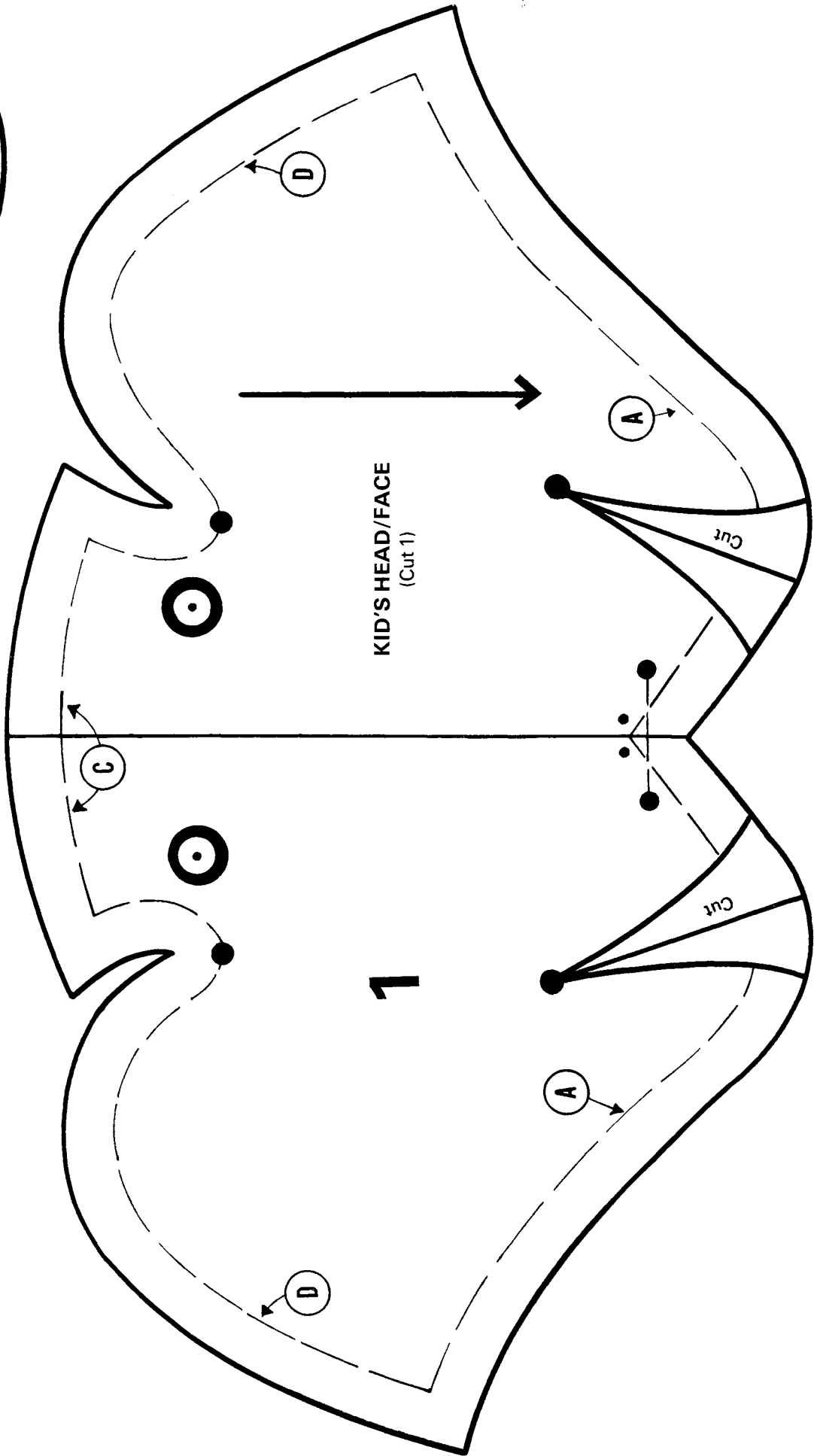


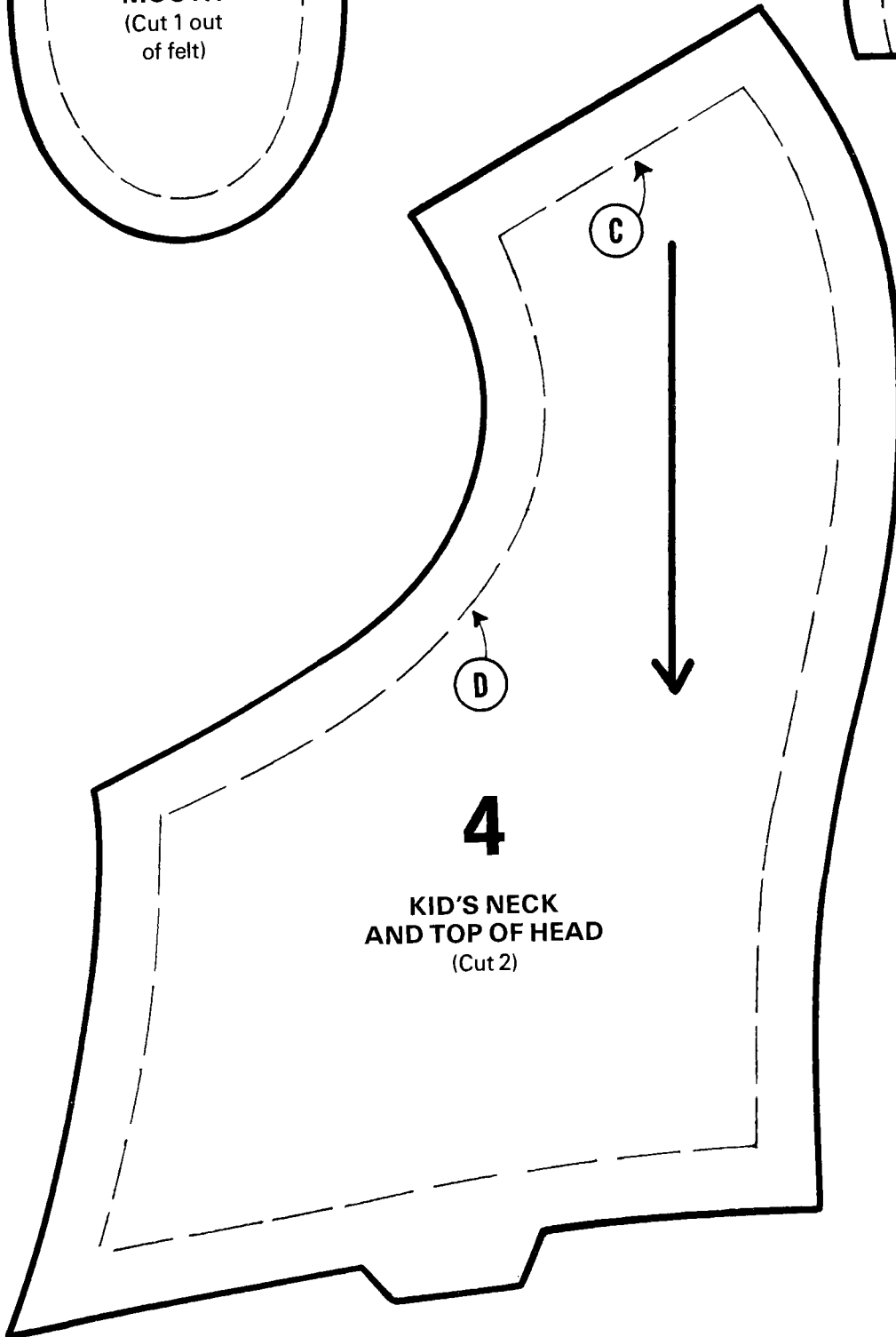
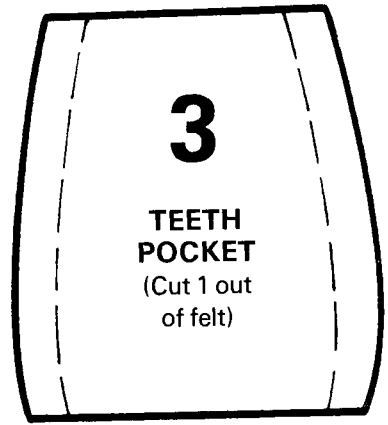
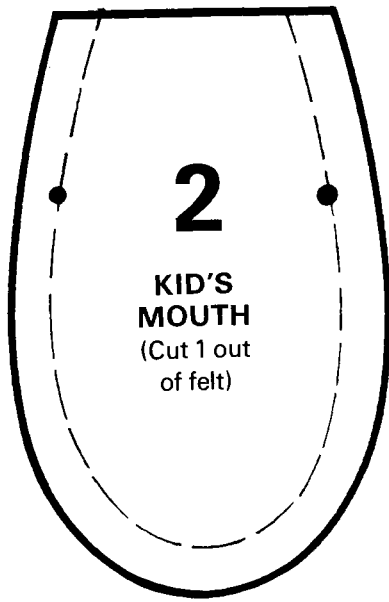
**Remove
pattern
pages
from
book**

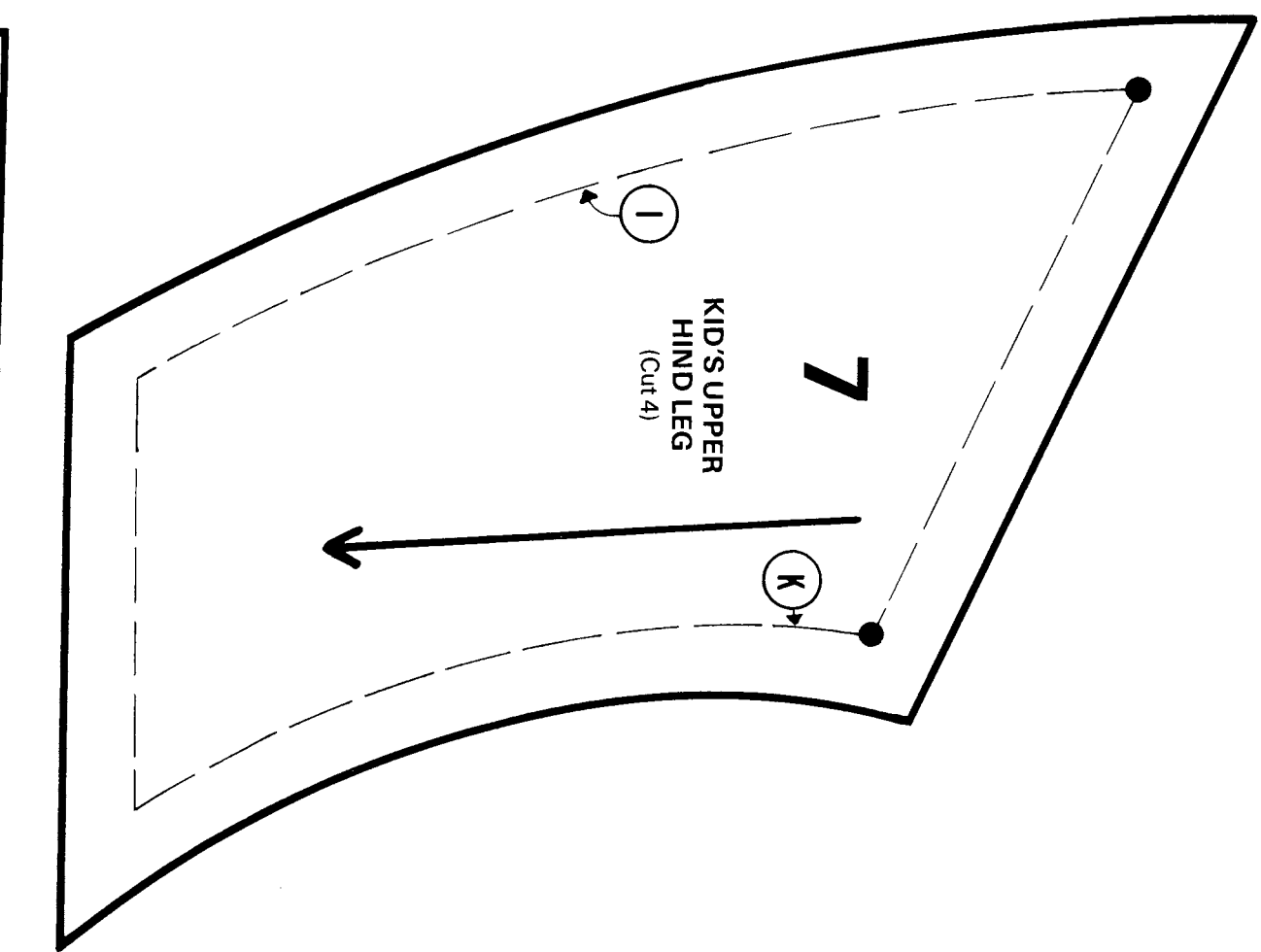
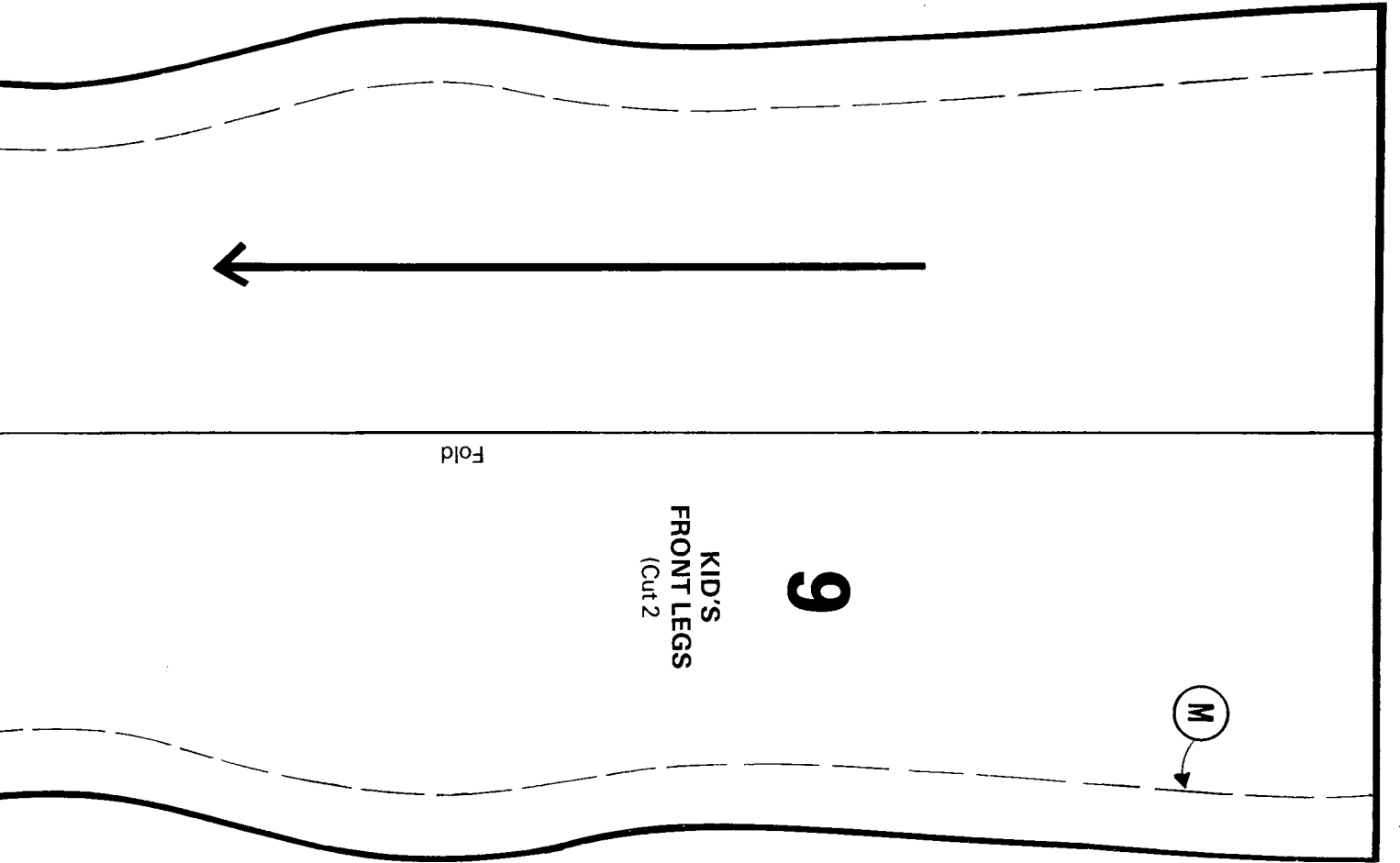


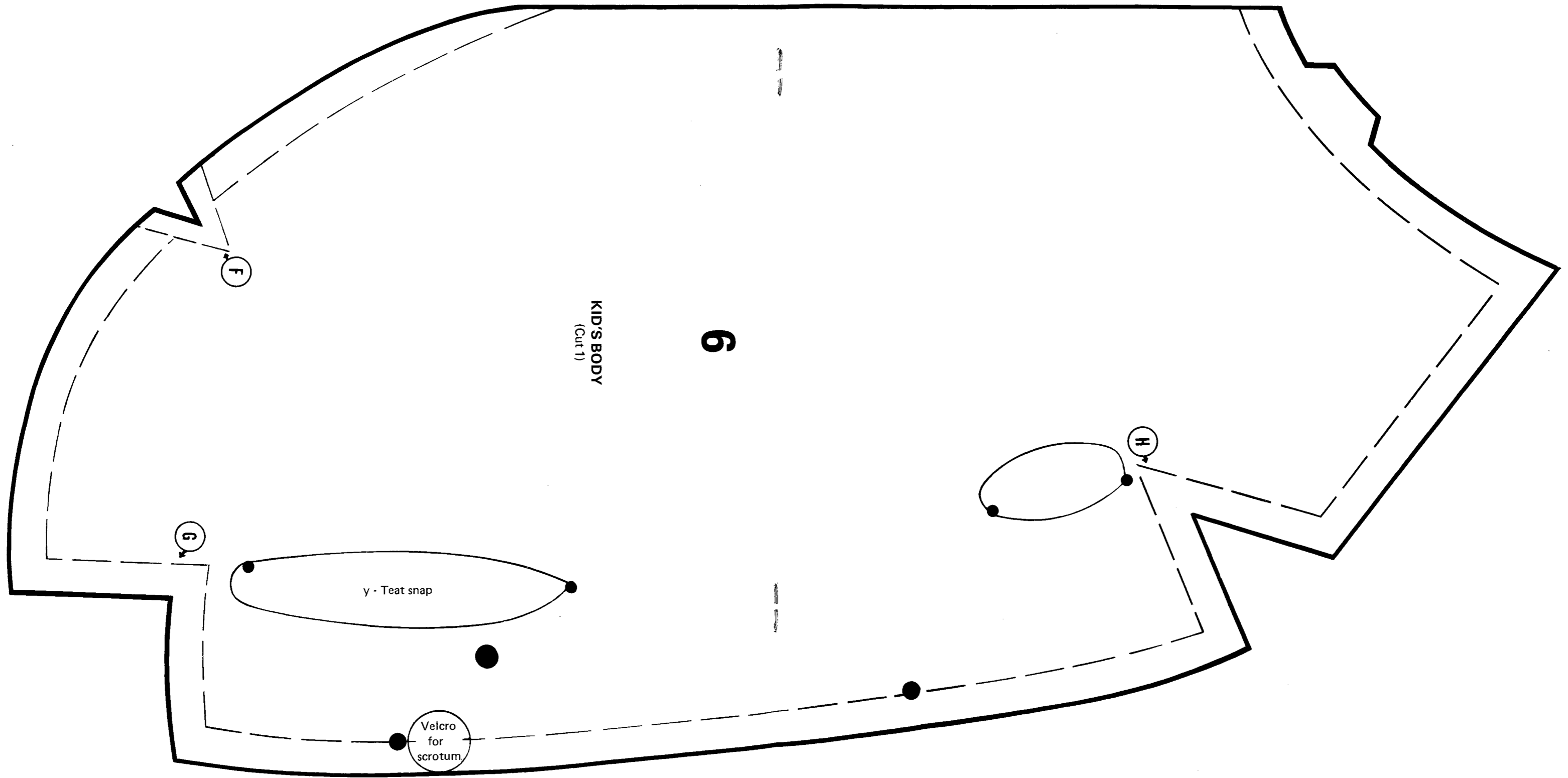
9A

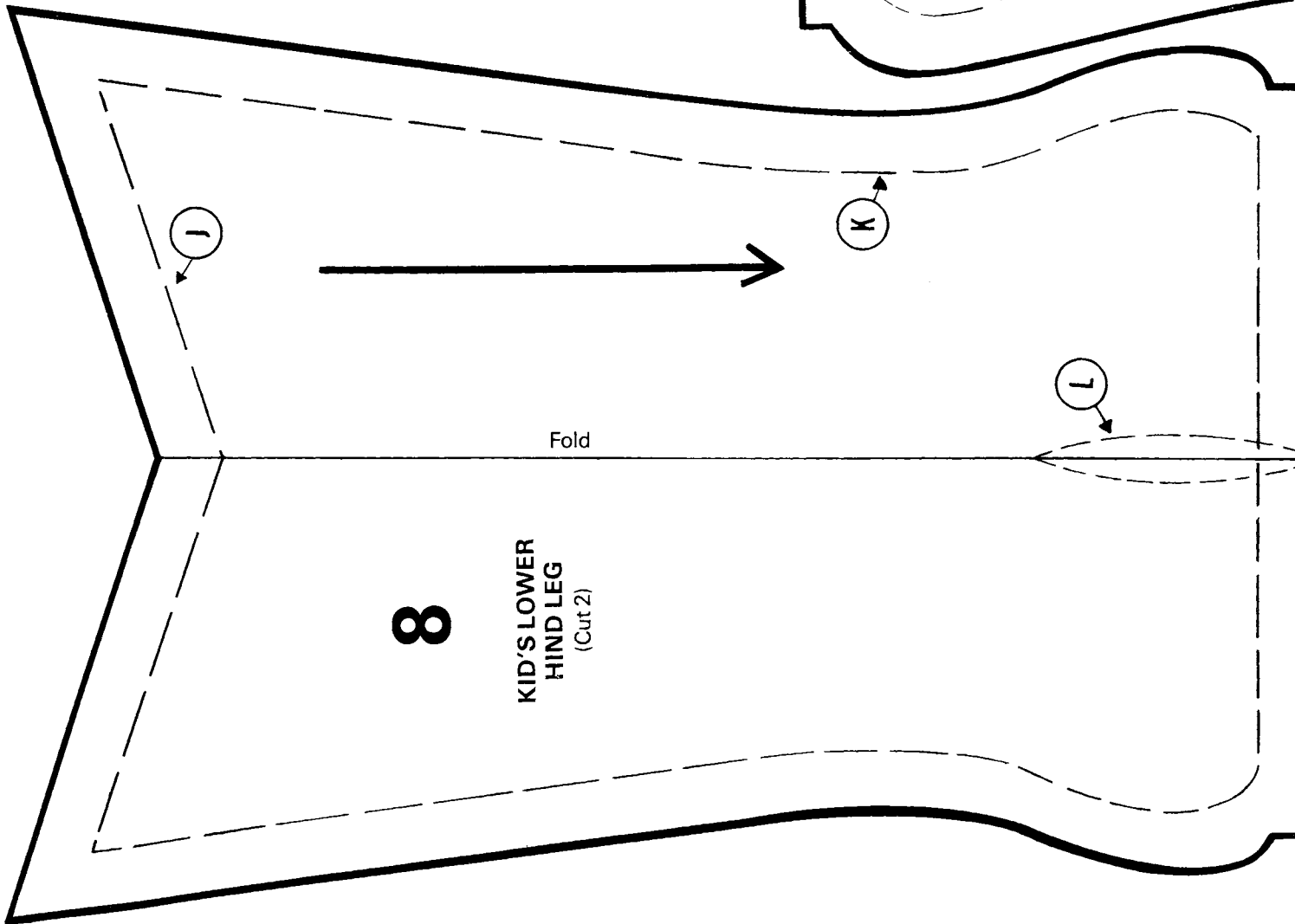
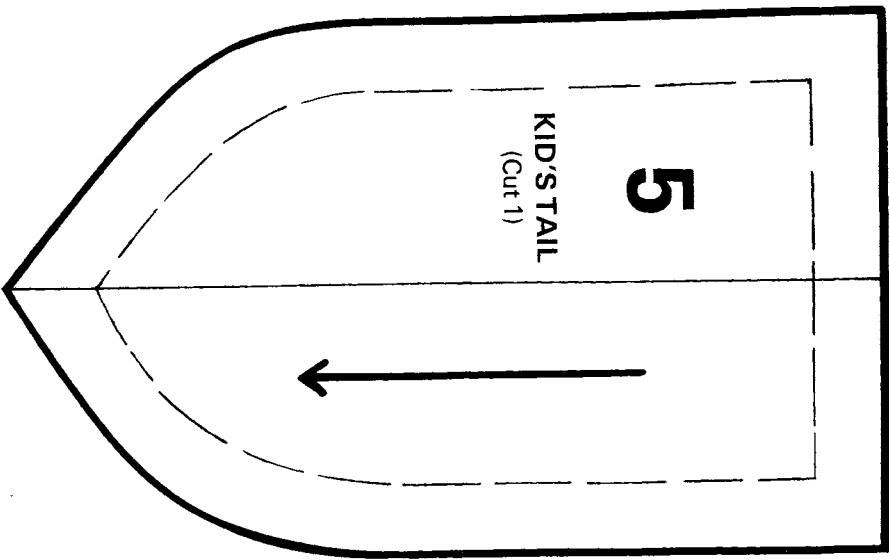
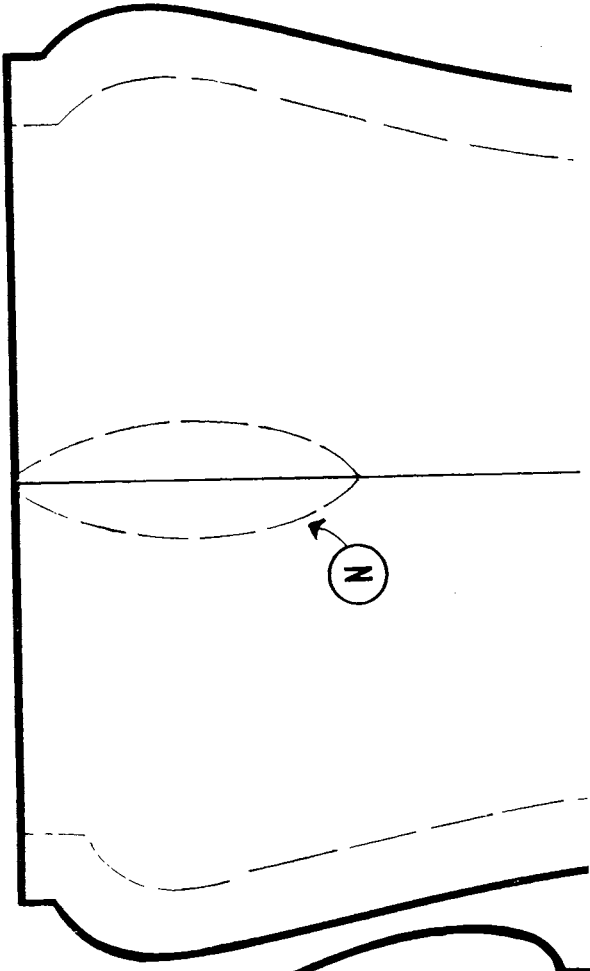
KNEECAP
(Cut 2 out
of plastic)

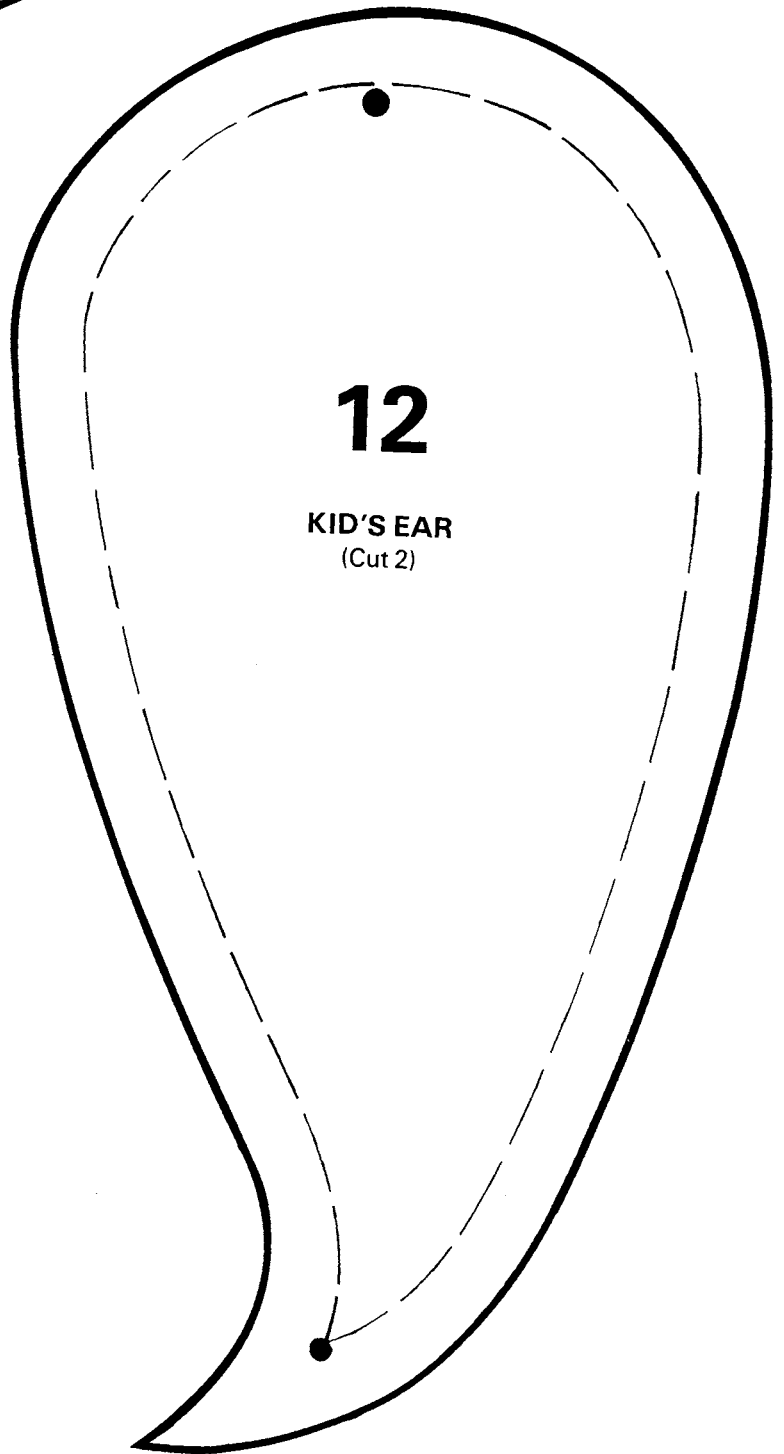
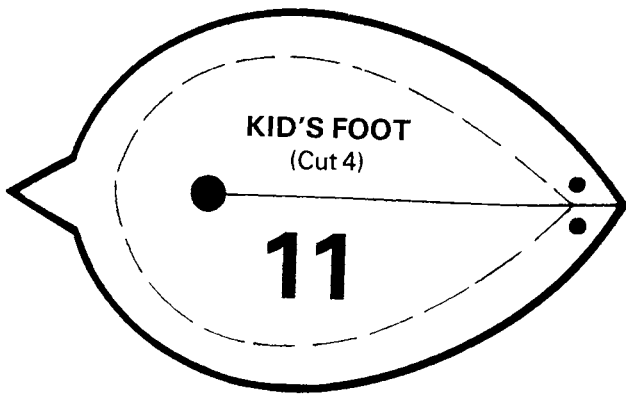


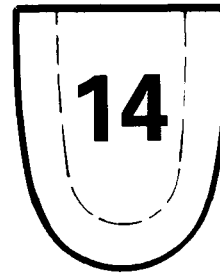
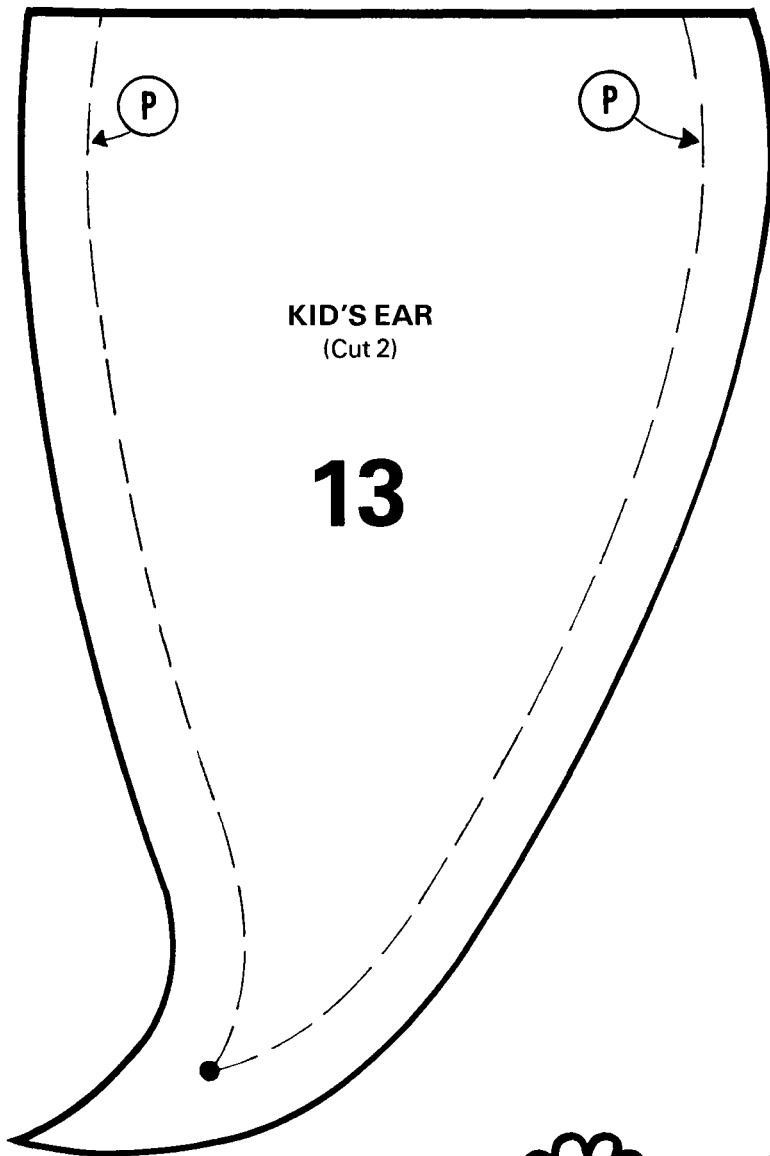




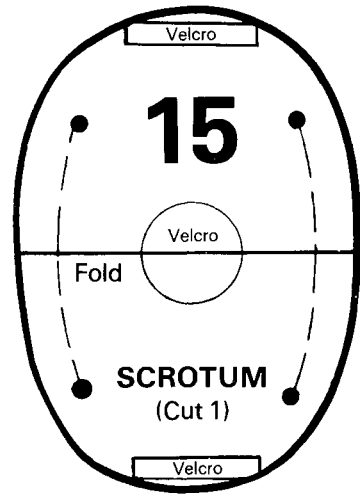




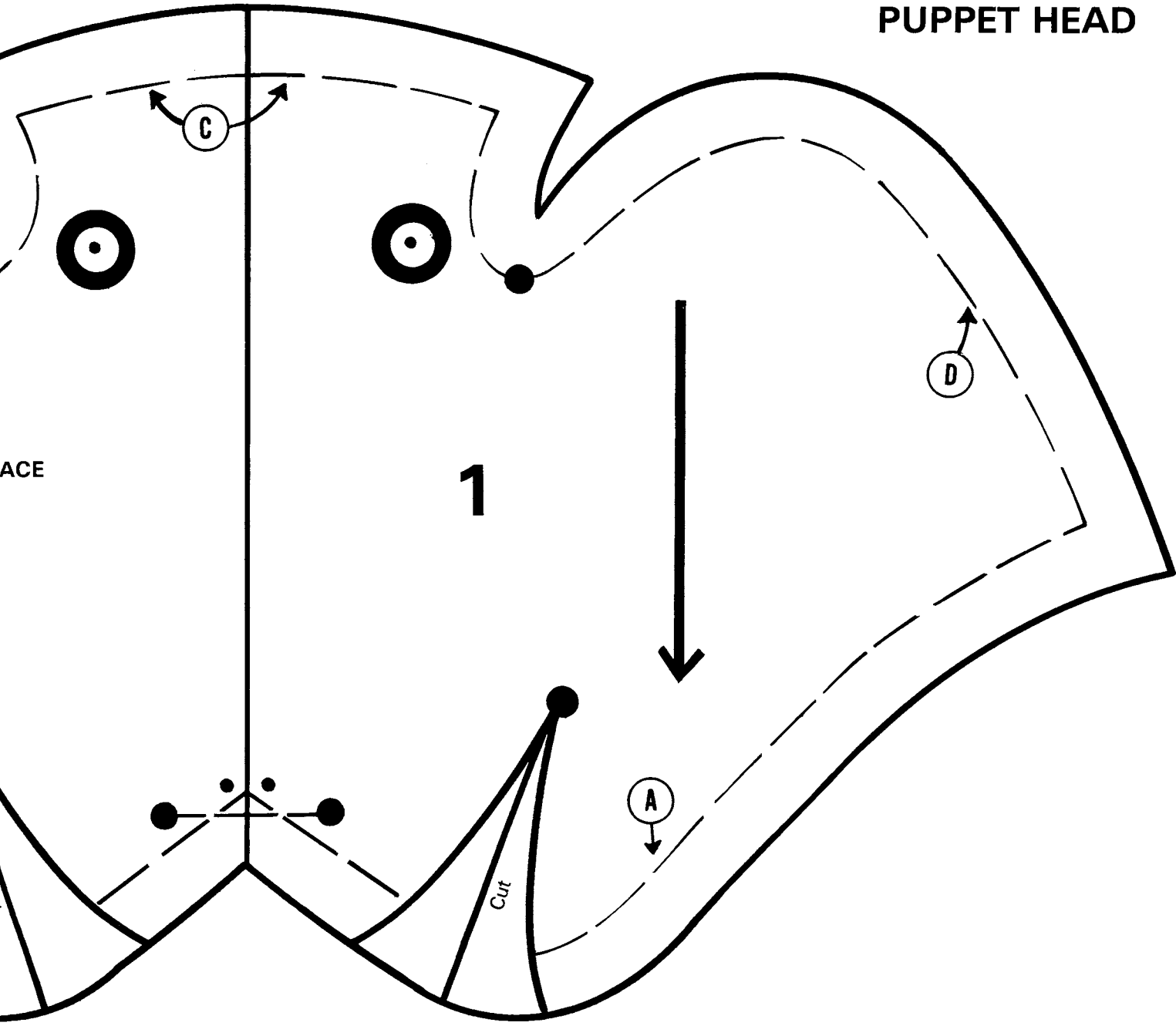




KID'S
TEAT
(Cut 3
out of
felt)



PUPPET HEAD



FACE

1

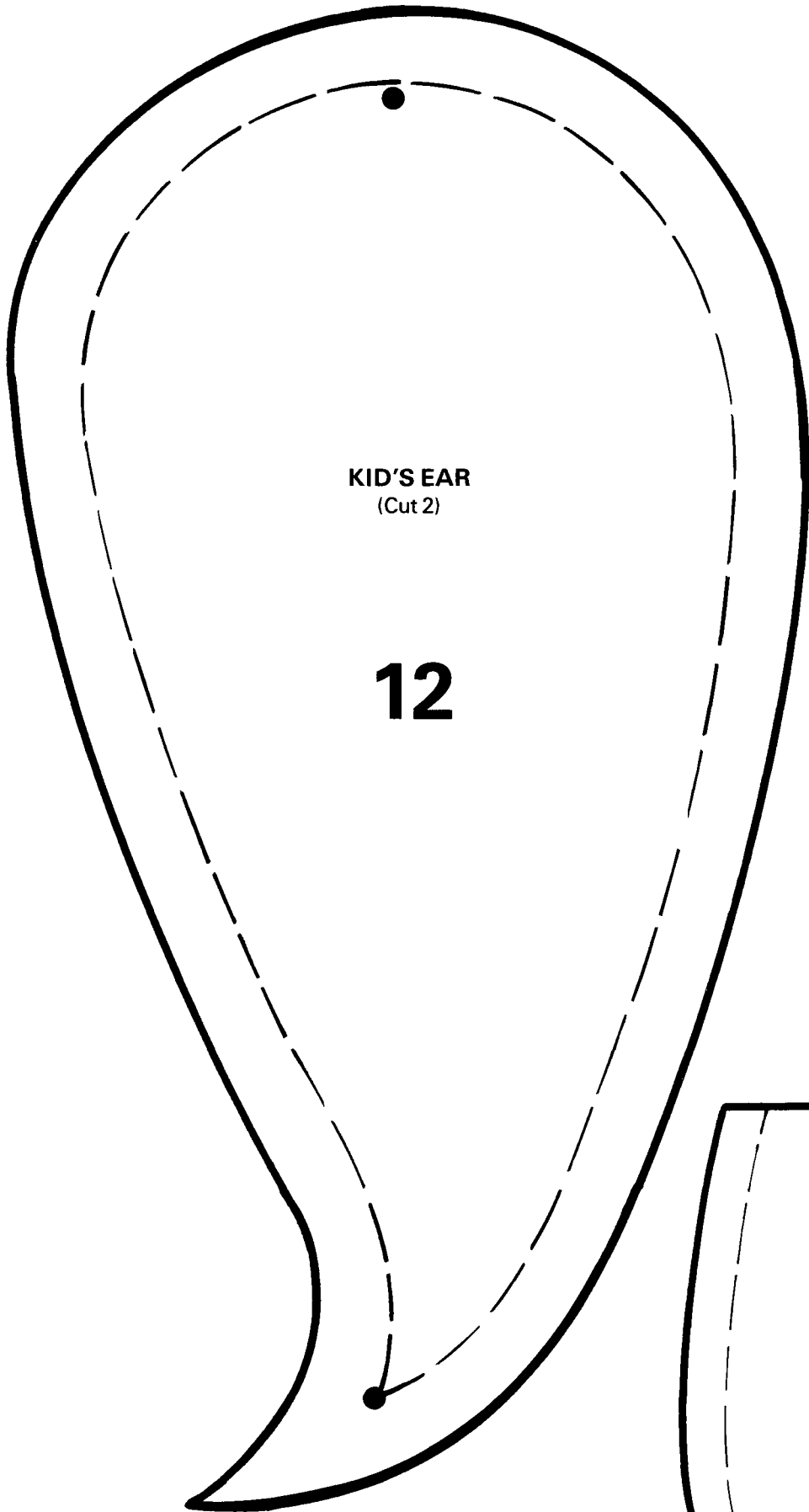
Cut

C

D

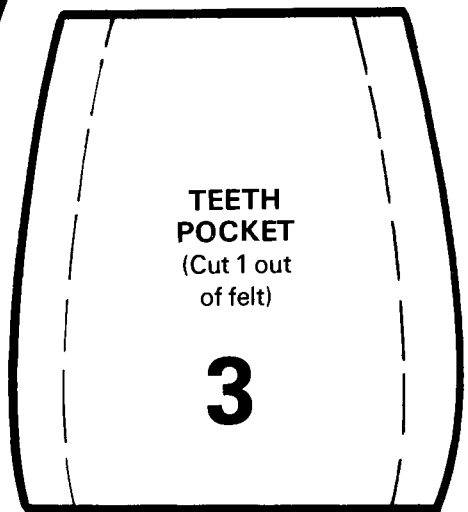
A

PUPPET HEAD



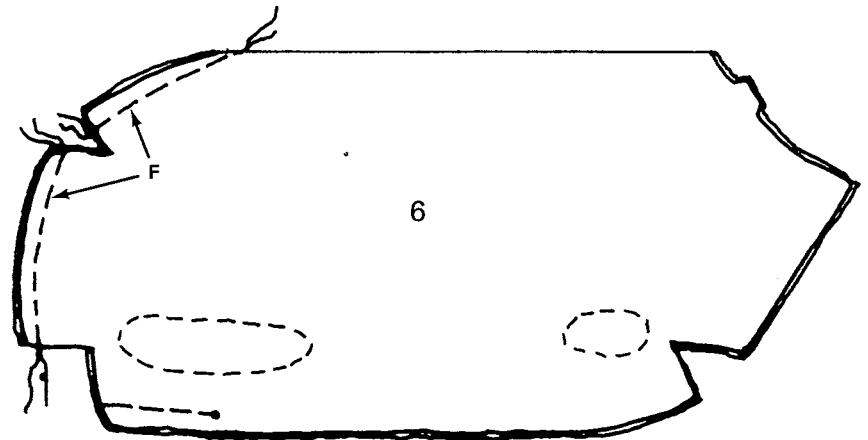
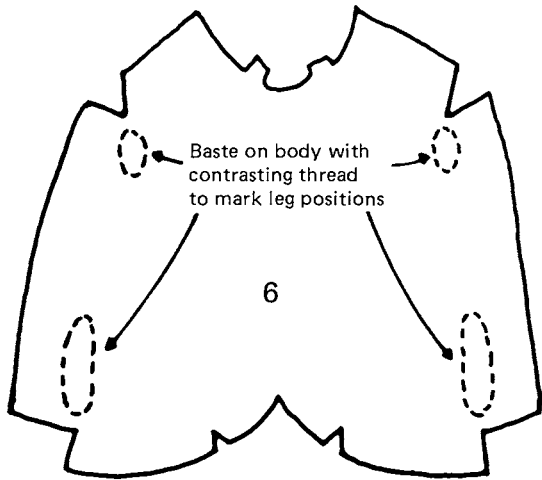
KID'S EAR
(Cut 2)

12



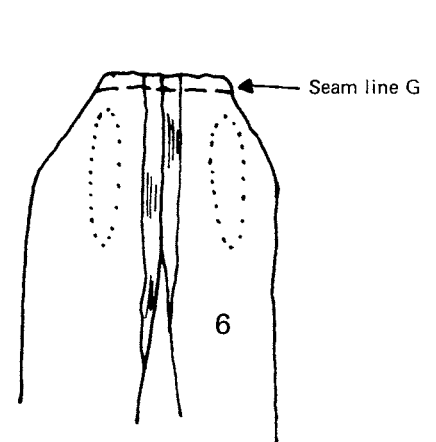
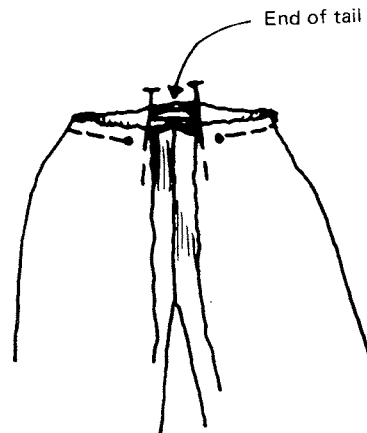
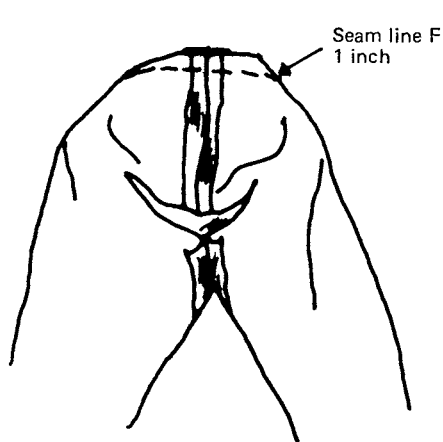
TEETH
POCKET
(Cut 1 out
of felt)

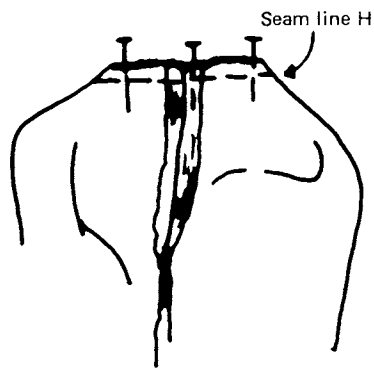
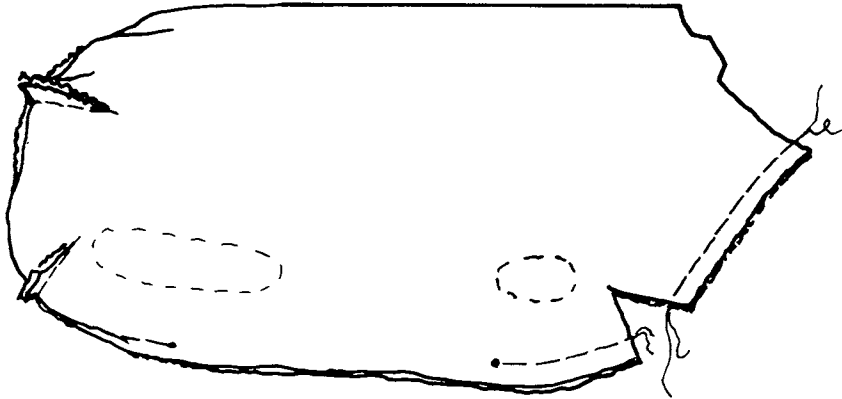
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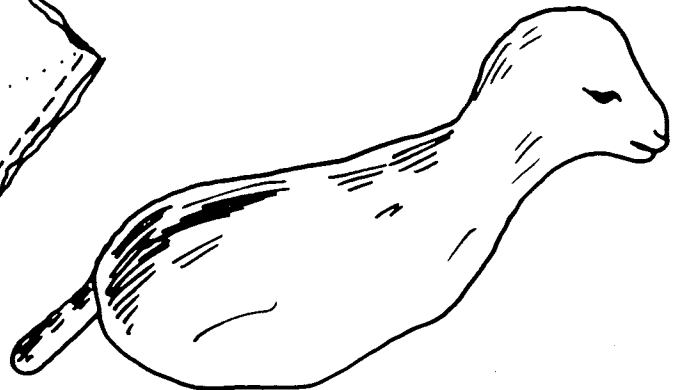
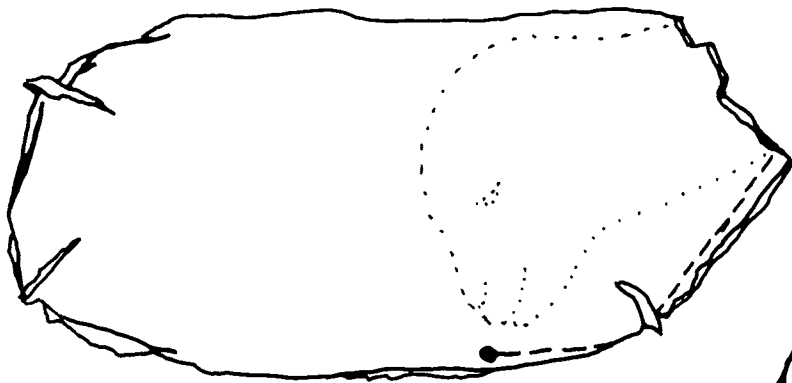
Step 4. Body

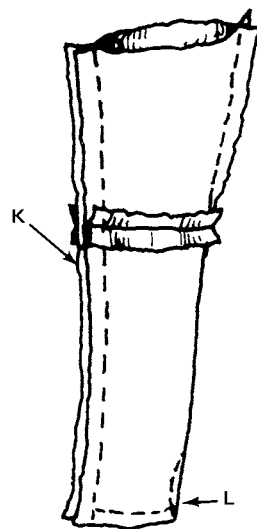
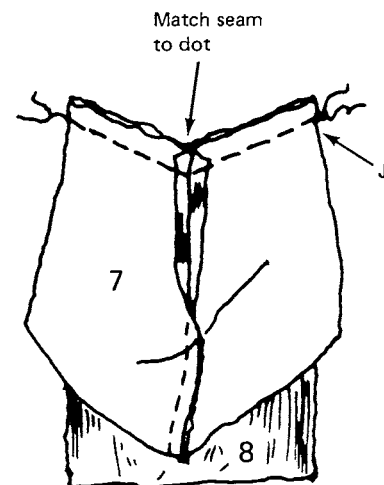
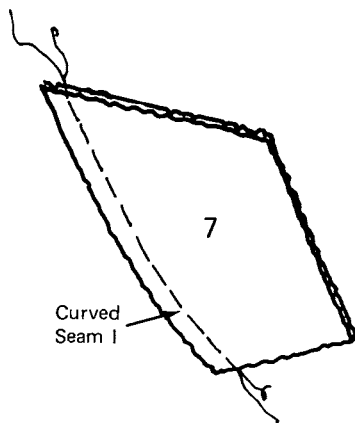
1. Pattern piece 6. Using a contrasting color of thread, baste along the lines marking the leg spaces. Also mark the small dots as indicated under Marking Directions.
2. Fold the body right side in. Stitch along the seam line. Start at the small dot on the folded edge and continue past two openings to where it stops at the large dot.
3. Pin seam line (F). Stitch 1 inch on each side of seam line (F).
4. Insert the finished tail from the inside so that the raw edge of the tail matches the raw edge of seam (F) then pin into places with tail seam on underside. Stitch tail in place by hand.
5. Pin seam line (G) and stitch.





6. Stitch along seam line in front of body to where it stops at the large dot.
7. Pin seam line (H) and stitch.
8. Insert the finished, unstuffed head from inside the body and out through the neck opening with right sides together and raw edges exposed. Match the notches and be sure that the under chin seam line meets the seam line of the body. Pin the neck to the body and machine stitch seam line.
9. Turn the body right side out.



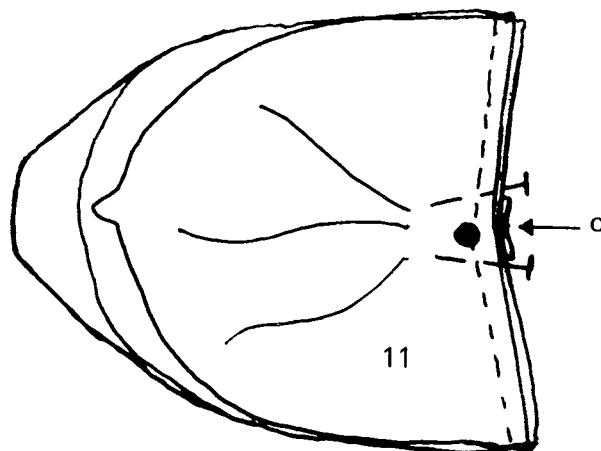
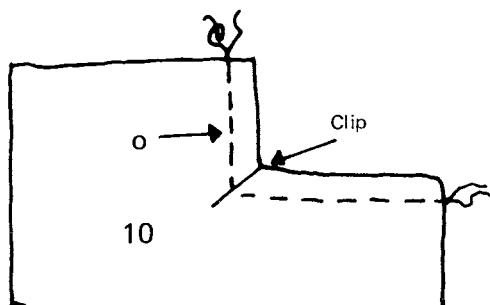


Step 5. Legs and Kneecaps

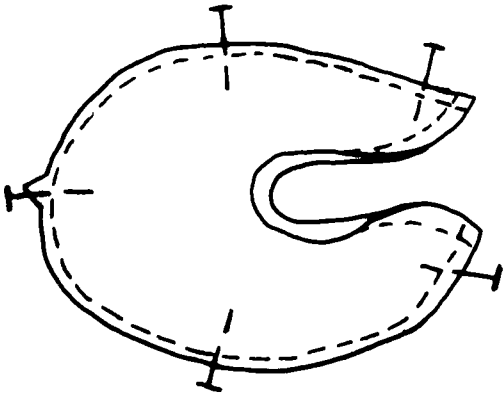
1. *Hind legs only.* Pattern pieces 7 and 8. With right sides together, stitch the upper hind leg sections (7) together along seam (I).
2. Pin the upper hind leg (7) to the lower hind leg (8) with right sides together and match seam (I) to the large dot on the lower hind leg. Stitch seam (J).
3. Fold leg right side in. Pin and stitch seam line (K) and small dart on seam line (L).
4. *Front legs only.* Pattern piece 9. Fold on fold line the right sides together. Stitch seam line (M) and small dart at seam line (N).
5. *Kneecap.* Pattern piece 9A. Place the plastic kneecap shape on the wrong side of the fabric in the center of the front leg as indicated on the pattern. Cut a square of fabric and place it over the plastic. Sew around the edges by hand to hold the kneecap in place.

Step 6. Hoof

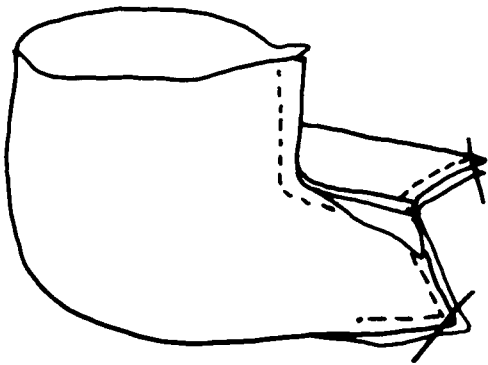
1. Pattern piece 10. Match small dots. Stitch seam line (O). Clip seam at dot.
2. Clip pattern piece 11 (foot pad) to large dot. Spread and match large dot on piece 11 to seam (O). Pin together with seams open. Stitch 1/4-inch seam.



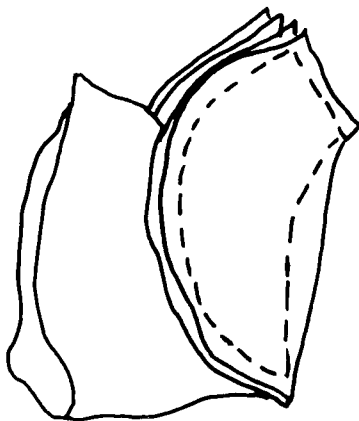
3. Match notches and pin. Match seams, pin and stitch. Be sure to stitch to the very edge of the felt and backstitch.



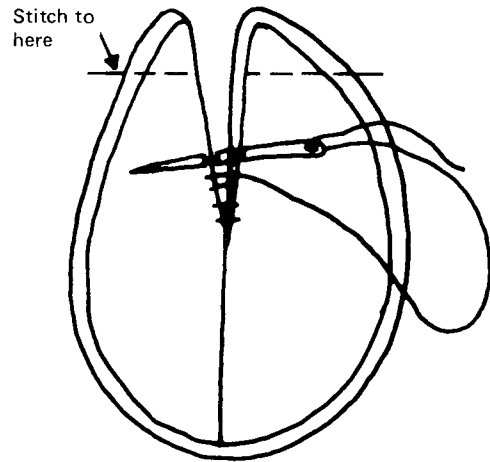
4. Carefully trim points of hoof. Do not cut thread.



5. On the sole of the foot (11), stitch a shallow curve from the end of the slash to notch. Turn right side out.

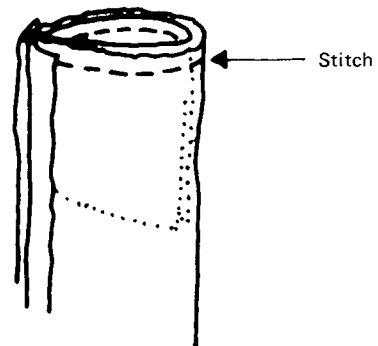


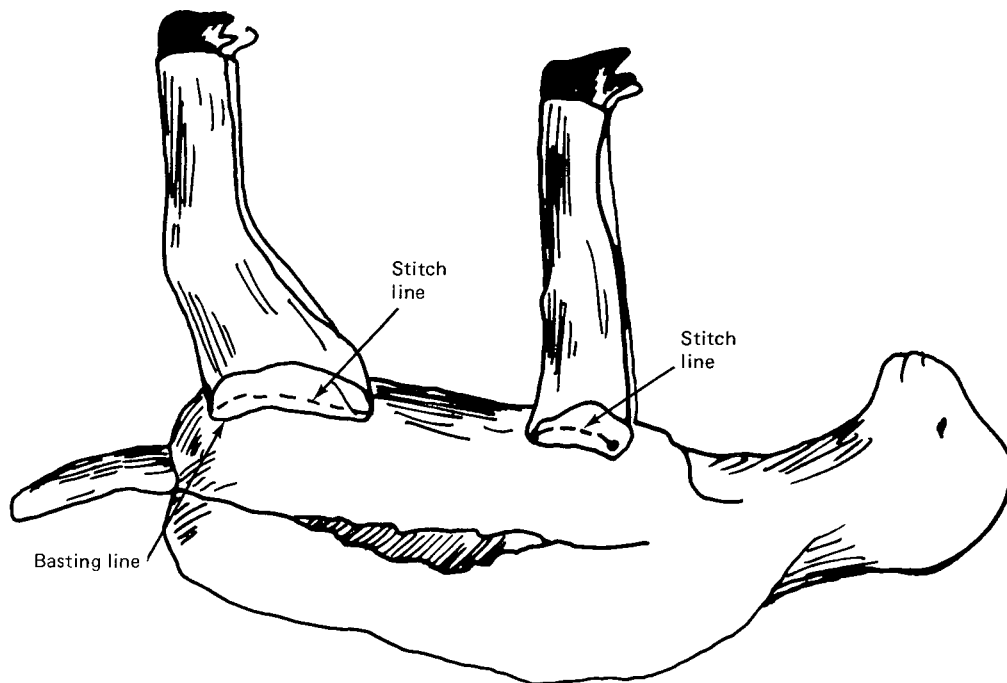
6. Make several small stitches in the pads of the foot, binding the toes together to within 1/4 inch of the tip.



Step 7. Assembly of Hoofs and Legs

1. Insert the finished hoof into the bottom of the leg with right sides together and new edges exposed. Match large notch on pattern piece (10) to leg seam. Stitch by hand.
2. Stuff hoofs with cotton balls.
3. Turn the legs right side out and stuff. Use a small amount of stuffing for limp legs. For firm legs, pack the stuffing hard.

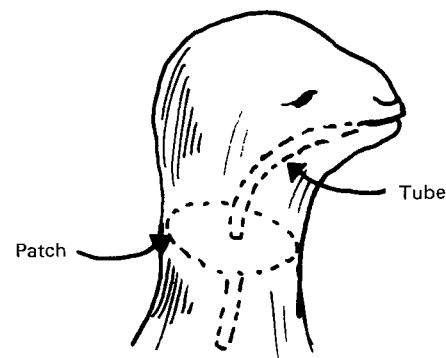




4. Attach the legs to the body at basted lines. The legs may be sewn on entirely by hand. For a stronger seam, sew one side of the seam by machine.

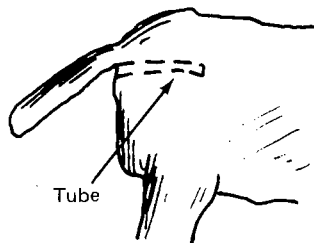
Hind legs. With right sides together, match hind leg seam line to the dot on the body. Stitch between the dots. Fold under the remaining leg seam. Pin it to the body and stitch by hand.

Front legs. Match the dots of the front legs to the dots on the basting line. Stitch between the dots. Fold under the remaining leg seam. Pin it to the body and stitch by hand.



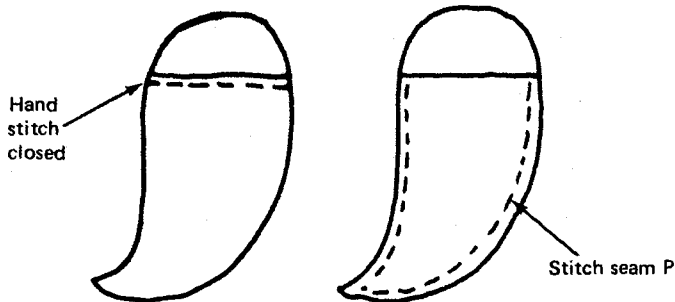
Step 8. Tubing and Stuffing

1. a. *Tubing.* Cut a 16-inch length of tubing. Seal the stomach end of the tube with tape. Cut a 1/4-inch slit in the back of the mouth to insert the tubing. With a heavy needle and double thread, stitch the tubing to the fabric.
- b. Cut a 4-inch length of tubing. Seal the end with tape. Below the tail, open rear body seam 1/2 inch and insert the tubing. Sew as in 1.a.
2. Stuff the head. If you are using Styrofoam pellets, it will be necessary to sew a patch across the neck opening to prevent the pellets from sliding into the body.
3. Stuff the body slightly for limp newborn kid appearance. For a firm kid, pack the stuffing hard.
4. Close the body with overcast stitches by hand along the stomach seam.



**Step 9. Ears**

1. Pattern pieces 12 and 13. Place right sides together. Stitch seam (P). With needle down, pivot on small dot. Trim seam to 1/4-inch. Turn ear right side out.
2. Stitch lining to upper ear by hand.



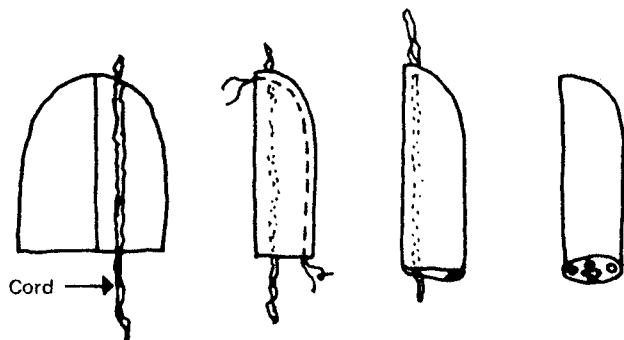
3. Match large dot on ear to large dot pattern piece (4). Turn raw edges down. Pin ear to solid curved marking on pattern piece (4). For a Nubian ear, the tip should be 1 inch beyond and below the point of lower jaw. Ears for other breeds should be shaped and set to best represent the breed. Secure ears to head by hand stitching.

Step 10. Horn Buds

1. Sew a flat piece of body fabric to upper half of Velcro circle.
2. Attach bottom of Velcro circle to kid at X marks on pattern piece (4).

Step 11. Teats

1. Pattern piece 14. Place cord on pattern piece. Fold pattern and match edges. Stitch on seam line directly over end of cord. Trim seam to 1/8-inch. Pull cord turning teat right side out. Clip extra cord.
2. Attach one-half of snap to open end of one teat. Attach other half of snap to pattern piece (6) at marking Y for completely removable teat.
3. Attach other two teats by hand to large dots on pattern piece (6).

**Step 12. Scrotum**

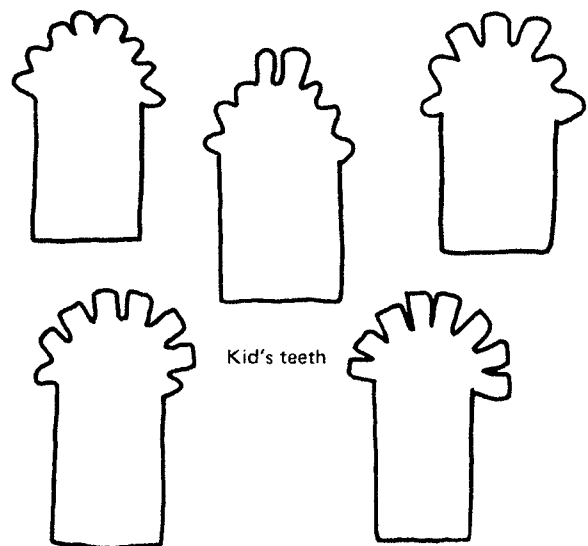
1. Pattern piece 15. Fold scrotum on fold line with right sides together matching small dots. Stitch between small dots. Use 1/4-inch seam allowance. Turn right side out.
2. Cut a strip of Velcro 1-inch long. Cut Velcro lengthwise into two 1" x 1/2" pieces. Attach one half of Velcro to opening. Attach other half to opposite side of opening as indicated on pattern piece.
3. Sew half of Velcro patch by hand to the top of the scrotum. Sew the other half of the Velcro patch to the body between the hind legs but behind the two teats.
4. Insert two small beads inside the scrotum to simulate testicles. Attach the scrotum to the Velcro on the body.

Step 13. Umbilical Cord

1. Using a chain stitch, crochet a 6-inch cord out of pink yarn or heavy crochet thread. You may also use a 6-inch piece of purchased cord.
2. Sew one end of the cord to one side of snap.
3. Sew other side of snap to underside of the body; then attach.

Step 14. Teeth

1. Pattern piece 16. Cut five sets of teeth out of plastic lids.
2. Gently bend teeth up to give a natural look.
3. Place teeth into tooth pocket in mouth.



Adapted with permission of the Clackamas County 4-H Leader's Association, 256 Warner Milne Road, Oregon City, Oregon 97045.

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