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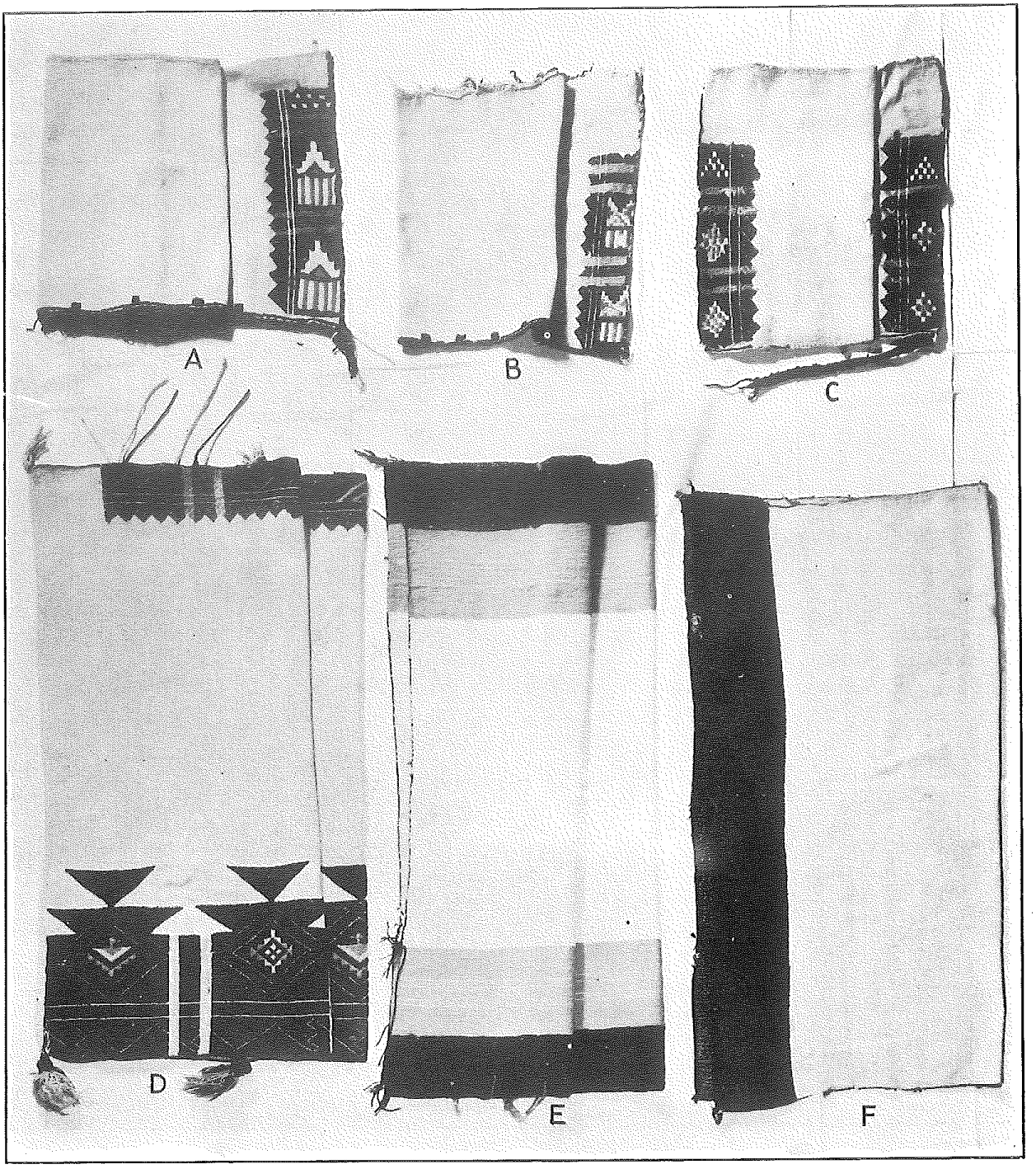
DEPARTMENT OF INDIAN ART

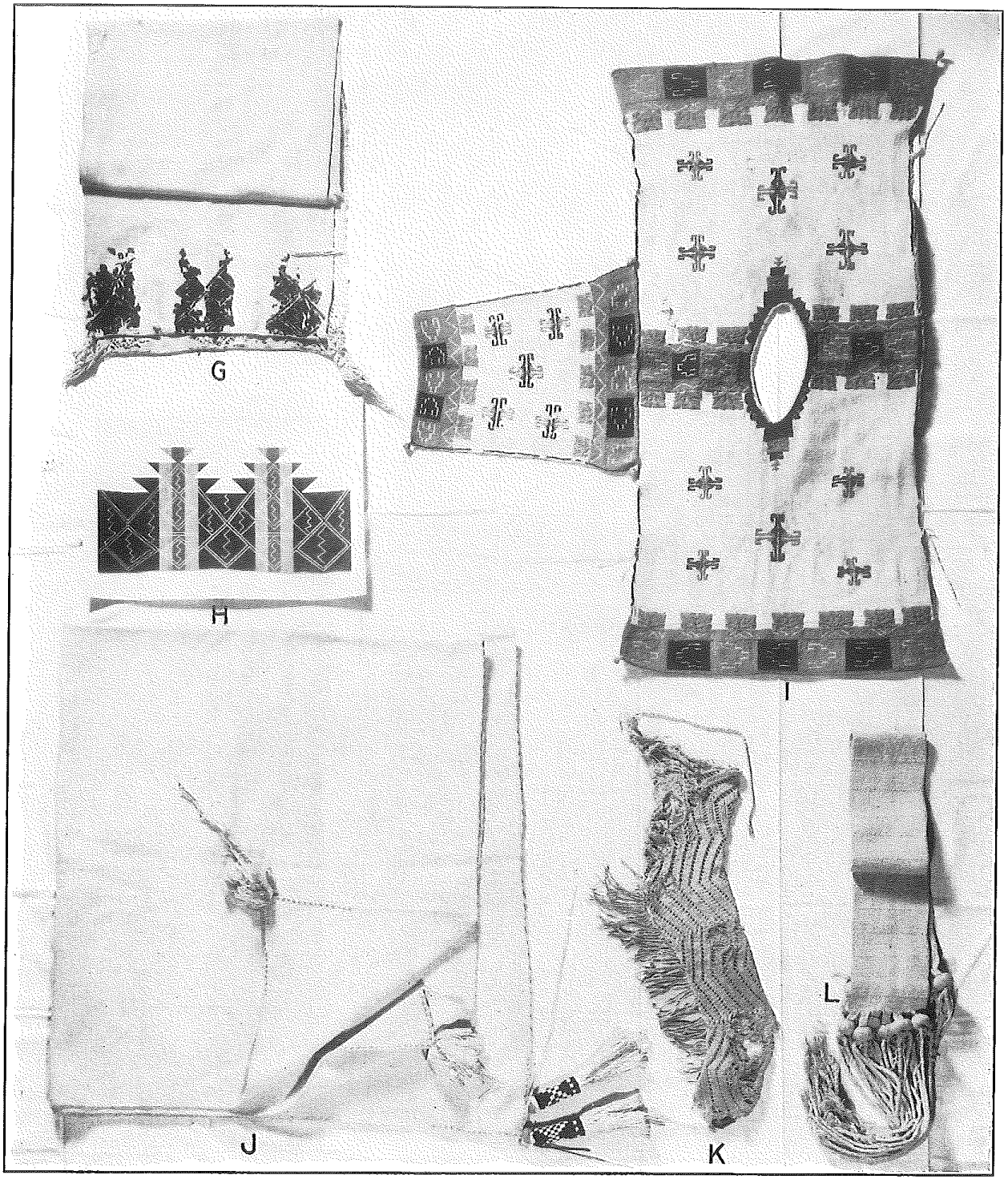
FREDERIC H. DOUGLAS, CURATOR



Main Types of Pueblo Cotton Textiles

LEAFLETS 92-93

JANUARY, 1940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1. INTRODUCTORY. The purpose of this leaflet is to describe the main types of articles made from cotton by the Pueblo Indians of Arizona and New Mexico. For the names, locations and other facts about these people and their villages see Leaflets 45-46. The distribution of the manufacture of these different articles in the last century is described in the following leaflets: Hopi, Leaflet 18; Tewa, Leaflet 90; Keres, Tiwa and Jemez, Leaflet 91; Acoma, Leaflet 89; Zuni, Leaflets 96-97. In these leaflets references are made to various articles without giving much detail about them. These details are given in this leaflet and in Leaflets 94-95, which deal with woolen articles. References in the text of this type "(90; F)" are to illustrations in other leaflets of this series.

2. THE HISTORY OF COTTON WEAVING is fairly clear in its early centuries; is practically a complete blank in its middle period of several centuries; and is quite well known from about 100 years ago up to today. Cotton weaving begins somewhere in the 8th century A. D., or sometime between 700 and 800. The oldest date in the tree ring calendar associated with cotton is 758 A. D. This fragment is from east central Arizona, somewhat northeast of the apparent center of the region where cotton weaving seems to have reached its greatest heights. From the ruins of towns which flourished in the Pueblo region through the following seven or eight hundred years have come many fragments and a few whole pieces of cotton cloth, indicating that the art was wide spread. If these fragments give a true picture weaving became more and more elaborate as the centuries passed, this elaboration reaching a climax in or around the 15th century. At this time complex openwork, damask, and slit weave pieces were made in addition to the more common plain and twilled, or diagonal, weaves.

By the time the Spanish arrived and explored the country between 1539 and 1600 it would seem that these elaborate weaves had died out, though plain weaves were still made in quantity. But it is possible that the Spanish simply failed to mention the complex weaves. The language of the old chronicles is rather vague as far as textiles are concerned. Knowledge of Pueblo weaving practically disappears during the Spanish period, though there are enough references to indicate that it did not die. In the 17th and 18th centuries the encomienda system of forced labor is known to have wrung thousands of yards of cloth from the Indians. But so far as is known all of the cloth produced under this system has disappeared, so that we have no knowledge as to its appearance and technical character. That the Spanish did not introduce their own horizontal loom to replace the native vertical apparatus seems indicated by the fact that the native loom is still in use and has been so as far back as scientific knowledge goes. It is not likely that the Indians would revert to their own loom if they had been forced for several centuries to use another type. Hence if the native loom persisted it seems reasonable that the types of textiles which the Indian loom produced would persist also. Though in the sweat shops of the encomienda system Spanish looms may have been used, the native loom surviving only in the more remote native towns. All of this is admittedly speculation, however.

Accurate knowledge of Pueblo cotton weaving does not begin again until 1879 when James Stevenson began to collect for the Bureau of American Ethnology. His collections indicate that at some time previous the openwork, damask and slit weaves had disappeared; and that embroidery and brocading had come into existence. The plain and diagonal weaves have carried through right from the beginning, 1200 years ago.

Shortly after Stevenson began scientific collecting, the building of railroads through Pueblo territory began to force the cessation of Pueblo weaving by the wholesale introduction to the Indians of factory-made blankets, articles of clothing and bolt cloth. As the old weavers died few young people took up the craft. So today we have cotton weaving still active among the Hopi, somewhat less so at Zuni, and gone elsewhere except for a few isolated weavers. Except among the Hopi and Zuni and the few other weavers just mentioned, the only cotton article which is still made in the old unbroken tradition is the braided sash to be described later in this leaflet. But a new school of workers in cotton has arisen through the efforts of the United States Indian Service which has introduced cotton weaving and embroidery in its schools and so trained a number of girls and young women in the art. The great break with tradition here is that women now do the work instead of men.

3. THE SOURCE OF COTTON until modern commercial material became available was—and still is to a slight extent—a plant native to the Southwest, *Gossypium Hopi* Lewton, fully discussed in reference 1. This plant was cultivated by the Pueblos in many parts of their area. Full botanical details are given in reference 2. In recent times there have been various substitutes, commercial cotton batting, Pima cotton from southwestern Arizona, and ordinary cotton string.

4. PREPARATION OF THE COTTON. The seeds were removed either by hand or by whipping the bolls between two blankets. The whipping loosened the seeds and the cotton stuck to the rough surface of the blankets from which it could be easily scraped. In ancient times the cotton was untangled with the fingers; but in modern times commercial wool cards have been used. Cotton is and was spun on the same spindle used by both Navaho and Pueblo for spinning wool. This is simply a slender rod with a small disk flywheel. The ancient spindle was smaller than that used today. All of these technical processes are discussed in reference 1.

5. THE LOOM has always been the simple upright device so often described in literature about the Navaho. The Pueblo loom is set up inside the home or in the kiva, or ceremonial chamber; but otherwise it is just like that of the Navaho. The Hopi and Zuni use one accessory which is certainly not common, or used at all, on the Navaho loom. It is a slender stick fastened across the warp and moved upward as the finished edge of the fabric rises. Its purpose is to keep the fabric at an even width. Leaflet 3 describes this loom and the process of weaving.

6. SEX OF WORKERS. Both weaving and embroidery are the work of men among the Pueblos with one main exception and several minor ones. At Zuni today—and apparently for some time—women do most of the weaving. All the Zuni men seem to know how to weave and a few do. But women weavers are the rule there. The minor exceptions are found in a number of villages where an occasional woman learned to weave, or more commonly, to embroider. This was especially true of Acoma where women embroiderers were common.

7. WEDDING ROBES (J) for brides are the largest articles made of cotton. They are today restricted to the Hopi in both manufacture and use. As is the case with a good many modern cotton pieces of all types the warp is often commercial string. These robes are in two sizes. The larger is about 5 x 6 feet and the smaller about 5 x 4. The proportions and sizes vary considerably. Both are plain white without pattern. They are rubbed with fine white clay. Elaborate tassels in the lower corners, as shown on page 166, are the only

decorations. These tassels have a complex symbolism connected with women's sexual apparatus which is explained in reference 3. Details of manufacture and use are also given in this reference.

Some time after the wedding either of these plain robes may be embroidered in the manner described in section 8. Some Hopi villages decorate the larger size and some the smaller. Customs are not standardized and the whole subject is complicated. After they have been embroidered the robes are used as ceremonial regalia by women, or men dressed to impersonate women.

8. EMBROIDERED SHAWLS (D: 89; B: 91; C: 96-97; A) are widely used in the Pueblo region and were formerly woven in many villages. But today, except for an occasional piece, all are obtained from the Hopi or Zuni. Reference 7 describes the embroidery technic. They vary considerably in size within a limited range. The average dimensions for 14 are 36 x 51 inches, the length ranging from 41 to 58 and the width from 28 to 51. They are most frequently draped over the shoulders with the broad band of embroidery across the bottom. Cords for tying are found near the upper corners of the short sides (top of D). For a few ceremonial costumes they are worn like the black wool dresses with a fold under the left arm and the upper corners fastened over the right shoulder.

As the photograph shows (D) there are two bands of embroidery, always in wool, a narrow one covering most of the top edge and a wide one covering the whole bottom edge. The general layout of these bands is always the same but the details vary in a limited range. One variety, found on older pieces, has no colored medallions in the wide band, the decoration being restricted to the white meander patterns which are always found along the bottom of the wide band. There are a good many varieties of these meanders, all related to the type of design which has come down to modern times from very early prehistoric basketry through later—but still prehistoric—pottery and weaving. The choice of subject for the colored medallions is said to depend on the wishes of the individual workers. The common subjects are birds, butterflies, dragon flies, cloud and rain designs and various simple abstract figures. Newer pieces (96-97; A) have more elaborate medallions than older ones (90; D).

The color scheme is very standardized. The bands of embroidery are black and the pairs of narrow stripes which cut across them are green, though in old pieces this green has often faded to yellow. I have seen only one exception, a specimen with red stripes on the lower band. The medallions are in several colors, red, green and yellow being the most common.

All of these shawls are usually assigned to the Hopi. But recent investigations indicate that they were made at many Pueblos. I know of no way to tell the work of one town from that of another except possibly in one case, as follows. The broad lower band is always topped with groups of triangles in either threes or twos. The evidence indicates that those with groups of two triangles are usually from Zuni. Aged informants in many villages stated that the whole design layout was the same everywhere and until additional evidence is uncovered this statement is all we have to go by.

There are three special types of these shawls. One was certainly the product of Acoma only, and the second probably was. The third is described below. The first type (89; B), described in detail in reference 7, has, in addition to the common top and bottom bands of embroidery, two birdlike figures

in the center just below the top band. This type is larger than the ordinary kind, averaging 5 x 4 feet. It also shows a color variation, two of the existing specimens substituting rose for the usual black.

The second type has narrow bands at top and bottom from which rise parallel rows of embroidered designs which look like pagodas, or the sails set on a full rigged ship. These appear to be an Acoma specialty, though nothing definite is really known about them.

The third type appears to be a modern one only. It is simply an oversized variety of the ordinary embroidered shawl described in the first paragraphs of this section. Except for size the two types are the same. These large pieces are the large wedding robes decorated with embroidery by the Hopi, as described in section 7.

9. "MAIDEN" SHAWLS. This term is applied to white shawls with red and blue (E: 90; F), solid blue (F) or solid black wool edge stripes. The white center section has a diagonal weave, though one Zuni weaver used plain weave. While generally worn by young unmarried women their use is not restricted to such. There is considerable variation in size, the average of 6 being 36 x 43 inches. The lengths range from 37 to 48 and the widths from 30 to 37. One example is square, a very uncommon exception to general practice. The most common type has two stripes several inches wide along each edge, the outer being blue and the inner red. The blue edged type is very much less common; and that with a black edge is only known from a few specimens. These colored stripes are created by substituting colored wool wefts for the white cotton ones used in the rest of the shawl. The blue edges are made in a diamond weave and the red stripes in a diagonal weave. Both are woven so that most of the colored yarn appears on one face. Hence there are definite right and wrong sides to these shawls. These are worn draped over the shoulders or over one shoulder and under the opposite arm, the colored stripes being horizontal. I have no information as to whether these varieties have special uses, though the blue edge type is said by aged Zuni and Hopi weavers to be older than the red and blue type.

10. EMBROIDERED KILTS (A, B, C: 70; B: 91; B: 96-97; D). These are worn around the hips of men dancers in many ceremonies throughout the Pueblo area. The average size of 8 examples is 38 x 18 inches. The lengths range from 32 to 45 and the widths from 17 to 20. The range in length is doubtless due to the range in girth of boys, youths and men. Along most of each short end is a band of wool embroidery 2 to 5 inches wide. This band starts at one long side but does not reach the other, the undecorated section being hidden while in use by the brocaded sash universally worn with these kilts. The embroidery design is very standardized (A), showing rain clouds, and stripes representing fields, done in red, green and black. Sometimes other designs are used. The one Acoma kilt I have seen is quite different. It is shown on Leaflet 89; F. Possibly kilts with different designs, (B,C) are for special ceremonies. But I have no information about this possibility, inquiries about the point having brought forth vague or negative answers. Some kilts (A, B) have additional decoration in the form of a narrow black braided wool edging sewn along the bottom, sometimes further elaborated with a widely spaced row of small black squares, 4 or 6 among the Hopi, embroidered on the edge of the cloth next to the braiding. The Zuni claim this is a tribal specialty but the Hopi deny this.

11. EMBROIDERED BREECH CLOTHS (G) are now excessively rare. I have found only five, three from Acoma and two from San Felipe. Two

from Acoma measured 81½ x 18 and 69 x 16 inches respectively. Two seen at San Felipe were about the size of the latter. About 1 foot of each end is embroidered. The Acoma pieces show complex geometric designs (H); while those from San Felipe have large simple units. Dark blue is the main color in the embroidery, with red, green and brown as trimming. At least one Zuni ceremonial costume called for a long cotton breech cloth. But today the old hand-made clouts are no longer used.

12. EMBROIDERED SHIRTS. On the evidence of the few existing specimens these shirts all followed the same pattern. Each had a long oblong section with a central hole for the neck, the ends hanging over the back and chest; and two sleeve sections made separately and sewn to the shoulders of the body section. The edges of the body and sleeve pieces are not sewn, being held together with ties placed at intervals. The shoulders, ends of the body section and cuffs of the sleeves are covered with heavy embroidery, and small embroidered units are placed regularly over the back and chest. Shirts are illustrated by (I: 89; G: 91; D). I have seen one shirt which is decorated with the pagoda-like designs described in the next to last paragraph of section 8. There is at least one shirt without embroidery. Whether it is simply unfinished or represents a now extinct type I do not know.

Red is the most common color on existing shirts, with blue and green as trimmings. Shirt making apparently only survives today at Jemez where a few have been made of commercial cloth with Germantown yarn embroidery (91; D). Acoma and Jemez appear to have been the main producers of shirts, though there is little real evidence to support this view.

13. BRAIDED SASHES (90; A) are made in many villages today exactly as they were made in prehistoric times, this type being the only one which seems to have been made continuously through the centuries. The sashes, often called "rain sashes" or, among the Hopi, "wedding sashes," are 4 to 5 feet long and 4 to 8 inches wide, about 6 inches being the average. At each end is a fringe of heavy twisted cords 18 to 24 inches long. There is no color or pattern. The fringe threads have large round knobs where they join the body of the belt. The complex braiding process used by the Hopi to produce such sashes is fully described in reference 6. Data are lacking as to whether this same process is used in other Pueblos. But this appears to be so. The common rain sash shows parallel rows of herring-bone units.

14. WOVEN SASHES (L) are also made. Superficially they resemble those made by braiding. But the woven examples show rather coarse diagonal, zigzag or horizontal lines instead of the parallel herring-bone vertical ridges of the braided type. This seems to be a modern development. A Hopi living at San Juan Pueblo crochets sashes of this type.

15. OPENWORK SHIRTS AND LEGGINGS (K: 90; H) have considerable use and some production today, especially in the Tewa towns. They are made by both crocheting and knitting. Hopi examples are knit, while those made in the New Mexico Pueblos are apparently crocheted. The openings are large and are arranged so as to leave fairly solid areas arranged in zigzags and other simple figures. Leggings are shown on the cover.

16. BROCADED SASHES (90; C: 96-97; G) are usually made of wool, but a few cotton ones have been produced. These sashes are made in two pieces, each 2½ to 3 feet long and from 7 to 10 inches wide. There is about 6 to 8 inches of brocading at each end, fringing falling below the brocaded area. This type of sash is worn generally in the Pueblo area around the waists of men dancers in many ceremonies. Occasionally one sees shirts, pillow tops and

table runners brocaded like the sashes. These are modern products made for sale to tourists. The technic of brocading is fully described in reference 5.

It should be noted that brocading and embroidery are different. The latter is the process of decorating cloth with a needle; while by the former process decoration is applied by weaving. The technics can easily be distinguished by looking at the back of the specimen. Brocading produces narrow parallel bands of color. Embroidered work shows irregular stitches all over the surface.

Compiled by F. H. Douglas from his field notes, study of the great collections; and from the following references:

THE UNIVERSITY OF NEW MEXICO

1. Symposium on prehistoric agriculture, part 7; A summary of data on aboriginal cotton of the Southwest—Volney H. Jones. Bulletin 296, 1936

SMITHSONIAN INSTITUTION

2. The cotton of the Hopi Indians: a new species of Gossypium—F. L. Lewton. Miscellaneous Collections, Vol. 60, no. 6, 1912

MUSEUM OF NORTHERN ARIZONA, FLAGSTAFF

3. Hopi courtship and marriage—Nequatewa and Colton. Museum Notes, Vol. 5, no. 9, 1933
4. The arts and crafts of the Hopi Indians—M.-R. F. Colton. Museum Notes, Vol. 11, no. 1, 1938
5. Notes on Hopi brocading—F. H. Douglas. Museum Notes, Vol. 11, no. 4, 1938
6. The braiding of a Hopi wedding sash—Kate Peck Kent. Plateau, Vol. 12, no. 3, 1940

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7. An embroidered cotton garment from Acoma—F. H. Douglas. Material Culture Notes 1, 1937

COLUMBIA UNIVERSITY

8. Hopi Journal of A. M. Stephen—E. C. Parsons, ed. Contributions to Anthropology, No. 23, 2 vols. 1936

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