

THE INLAID BOX WITH ITS CONTENTS AND THE CASE WITH THE WALKING-STICKS

A. THE INLAID BOX

THE objects which lay to the south of the first armchair all rested on a layer of decayed wood. This area, west of the sarcophagus, is circumscribed by the armchair, the bed on the west, and an imaginary extension of the line of the southern side of the alabaster sarcophagus. Lying here (from north to south) were the alabaster ointment vessels which had stood originally in a wooden box, the copper ewer and basin, a large pottery jar, a cylinder jar and bowl of alabaster, a bowl of red pottery, the headrest, the gold-covered box containing silver bracelets, and some toilet articles. Over these had been laid a piece of beadwork, parts of which were scattered over the whole area. Also resting on top of these objects and lying in the interstices between them were pieces of inlay. Some inlays had fortunately retained enough of the original pattern so that it has been possible to restore this as the decoration of the lid of a large box which contained all the above-mentioned objects.

The flooring of the box was indicated by the layer of wood underneath the objects. Mixed with the inlays were pieces of rilled gold sheeting and narrow gold strips marked with mat-work design or vertical ribbing. Many pieces lay in close contact with the similar sheets which covered the bracelet box, but when the latter had been eliminated, it was realized that the other pieces lay where they might be expected as the result of the collapse of the large outer case. As has been stated in Chapter II, this outer box and its contents slumped forward to the west in the process of decay, because the floor of the box rested unevenly on a fragment of limestone (see Fig. 38). With the exception of the floor boards, the box was covered with gold on the outside. It had no gold lining.

An attempt has been made in Fig. 38 to suggest how the objects were originally packed in this case. The description in Chapter II of the way in which they subsided can be checked with Pls. 32-41. The length of the box could be determined from several factors: first, by the position of the objects as they rested on the floor—the length from the alabaster vessels to the southern end of the sarcophagus was roughly 85 cm. (see Fig. 19). More or less in position at the two ends lay the two strips that covered the ends of the lid, bent under and around two cleats which were fastened on the under side of the lid to hold it in position when it was placed on the box (Fig. 39; Pl. 33 a, where one is photographed laid out flat). Second, enough hieroglyphs were preserved from the inscription which ran horizontally along the central portion of the lid to indicate that they formed the same titles and name of the queen as appear on the carrying-chair (Fig. 40; Pl. 35 b). The length of this inscription could be estimated to correspond to that suggested by the position of the contents of the box as they lay on the floor. It was finally recognized that the squares of horizontally ribbed gold sheeting comprised one sheet 44 cm. × 22 cm. and two sheets 22 cm. × 22 cm., which could be combined to form a large sheet 88 cm. long and 22 cm. high. There were nearly enough odd sheets and fragments to make up a second set like this first. These, therefore, formed the sides of the box (Fig. 39; Pl. 33 a).

There were also some strips of gold with vertical ribbing (samples on lower part of Pl. 32 a) which

were sufficient in number to form two bands on each side of the box. One band (3 cm. high) was narrower than the other and corresponds to the ribbed portion of the gold which was folded up over the end of the lid (Fig. 39; Pl. 33 a). This narrow band evidently ran along the top of the side of the box, while a wider band (5 cm. high) ran along the base. It did not continue across the ends of the box.

The box, then, seems to have had a total length of 88 cm., while the combined measurements of the height of the gold pieces on the side would give a total height of 30 cm., not including a slight addition for the thickness of the floor board. The length agrees well with that of the inscription on the lid and the position of the objects on the floor, while the height agrees with that of the two remaining gold sheets with horizontal rilling (28 cm. high and 32 cm. wide) which evidently formed the ends of the box. It will be seen from the drawing in Fig. 39 that the lid fits down between the sides of the box, the ribbed ends showing where they rested on the somewhat lower box ends. If we add to the height of the box end (28 cm.) the vertically ribbed band (3 cm. high) on the end of the lid, the resulting vertical measurement is 31 cm. The difference of 1 cm. (between 30 cm. for the side of the box and 31 cm. for the ends with the lid in place) has been adjusted in the restored drawing in Fig. 39 by making the sides of the box 31 cm. high. It seems reasonable to allow for a margin of error here, since when the measurements of the gold sheets were taken in Egypt in 1947, it was not realized how they had been originally utilized and all varied somewhat from the mean measurements of the sheets (22 × 22 cm. and 44 × 22 cm.) which had been recorded for them during the clearance of the tomb.

The drawing in Fig. 39 shows how the thickness of the side boards along the top as well as at the two ends was covered by a narrow gold strip decorated with matting pattern. The inlaid upper surface of the lid was also framed with a narrow mat border (Figs. 39, 40). Samples of these mat-work strips appear in Pl. 24 a because they were mistaken for parts of the second armchair and photographed with them. Not quite enough of these gold strips were recovered to make up the required length, but it would seem that enough have survived to justify placing them in position in the restored drawing. One small fragment was found adhering to two border inlays, indicating that this pattern actually ran around the top of the lid. Another piece, which covered the thickness of the board on one side of the box, can be seen adhering to the rilled sheet on Pl. 33 a. When this photograph was taken, the gold sheets had been laid on top of one another in a pile and the two upper sheets lie side by side with their rilling in a vertical position. The small section of mat pattern is attached to the right side of the rilled sheet lying underneath.¹

The most important elements for the correct restoration of the box are the two rectangular gold strips creased to fold around the wood which they encased (seen one lying on top of the other in Pl. 33 a). After much experiment, it would seem that they can only be made to fit around the end of the lid, a narrow strip of its underside, and the outer side and lower face of a narrow horizontal cleat attached to the bottom of the lid (Fig. 39). When placed thus, it has been seen how well the vertical ribbing of the end of the lid matches the vertically ribbed band which runs along the sides of the box. With the lid in place this band then runs around the whole box. The width of the gold pieces covering the end of the lid was recorded as 36.5 cm. and 37 cm., respectively, and thus accords well with the width of 38 cm. measured for the width of the gold sheets covering the ends of the box.

Although the reconstruction of the design on the lid of the box went along side by side with the piecing together of the gold elements from the sides of the box, it could not be completed until the

¹ In July 1951 it was possible to examine the material in Cairo with Ahmed Youssef, who proposes to restore both box and armchair. It was found that all the pieces of gold from the sides of the box were ribbed vertically (as in Pl. 33 a), while the

ends of the box had horizontal ribbing. When the pieces were laid out, it also appears that the length of the box, when restored, will probably be about 85 cm. rather than 88 cm.

significance of the two gold strips just discussed was understood. These pieces made it fairly certain that the width of the lid was 38 cm., while it was already evident that the length must be 88 cm. The inlays which had adhered in small groups on top of the collapsed bracelet box could be recorded in place and lifted onto trays with a considerable portion of the pattern recognizable (Pls. 34 d, 35). The relationship between the hieroglyphs forming the inscription ending with the name of the queen and the upper part of the design was fairly well understood (although the throne was omitted in the hieroglyph of the seated queen) in the sketch made at the time of clearing the pieces (cf. Fig. 40 with Smith, *A History* . . . fig. 56). However, this sketch was really a composite drawing made from parts near the center of the upper part of the box lid combined with the name of the queen and a few bits of flower and feather pattern, as well as two inlays from the left-hand border. A careful examination of the Expedition record showed that the hieroglyphs with the queen's name, as well as the other inlays from the left end of the lid, actually came from the area north of the gold sheets of the bracelet box, beside the alabaster bowl. This bowl had been resting on the sloping floor of the box, with the red pottery bowl and alabaster ointment jar inside it forming a fairly heavy weight. These vessels seem to have slipped through the side of the box before its final collapse, since one leg of the bed first fell with its foot in the alabaster bowl (Pl. 38 b), then the gold bracelet box collapsed on top of the bed leg (Pl. 37 b). Finally, the inlays from the lid of the outer container subsided on top of all the rest, some groups of inlays falling down into the interstices of the irregular surface of the deposit, but still retaining a semblance of their original relationship.

Once it was realized that the hieroglyphs forming the name of the queen were found some distance north of that section of the upper part of the design which lay on top of the bracelet box, it was possible to see how the lid inlays could originally have covered the whole contents of the box. It must be remembered that they slid forward to the west, due to the tilting of the box as it rested on a stone on the floor. The hieroglyphs of the queen's titles which should form the beginning of the inscription were found, upon examination of the Expedition record, to lie a little to the south of the bracelet box, just as her name lay a little to the north of it. A thorough check of the position of the rest of the inlays showed that they lay in this north-south line with their horizontal bands of design in the east-west relationship to one another that appears in Fig. 40 from the top to the bottom of that drawing.

Since the width of the lid was greater than could be filled by the design reconstructed in the original sketch of the tomb record, it was obvious that some of the patterns of the upper part were repeated below the inscription. It was found that a flower and feather strip, banded above and below by Min emblems, would best fit this remaining space. Although no actual join between the inscription and these lower elements was found, the portions restored in the lower left and lower right corners of the drawing in Fig. 40 were found in such a position as to make their restoration highly probable. In the lower right corner of the drawing appears a small section of two border inlays with a fragment of the gold matting border adhering to them. These were found closely juxtaposed to the Min emblem drawn above, as well as the flower and feather pattern and the hieroglyphs of the beginning of the inscription. This would appear to make the correct placing of these elements virtually certain.

Thus, while large areas of the pattern must be drawn in broken line in Fig. 40, enough remains (drawn in solid line) to justify the reconstruction. The inlays were difficult to photograph, but Pl. 35 may give some idea of their original position and present condition. Many more loose inlays were found which had been dislocated from their groupings. An attempt was made to arrange these (as in Pl. 35 c) according to patterns, but at the time this was undertaken the whole design was not clearly understood. In Pl. 35 d, for example, some of the Min elements belong to the slightly different pattern applied to

the walking-sticks. It might be possible now to assign most of these pieces to their places, if a restoration of the actual pieces of the box can be undertaken.

It was not entirely due to the uneven surface on which the inlays fell that the design of the box lid was less well preserved than the other inlaid designs of the Hetep-heres tomb. Instead of thin gold sheeting which covered the other pieces of furniture and which retained the outlines of the designs filled with inlay, here a background of silver sheeting was used and this had decayed except for small, brittle fragments. The inlays were held together by shreds of almost completely decayed wood, but only in the case where they rested on a comparatively flat surface. Originally the silver must have lent a sumptuous texture to the surface of the lid, contrasting pleasantly with the gold sides of the box. An added richness was given to the design by placing a carnelian disk in the center of each of the flower rosettes and as the round central element of the Min emblems. In the case of the other inlaid pieces from the tomb, the center of the flowers was formed of faïence like the other inlays, but we shall see that carnelian disks were also used in the Min emblems of the inlaid staff. The coloring of the inlays of the box lid had almost entirely faded away except for the blue-green and black elements in the flower and feather patterns. One suspects that other colors were used for the hieroglyphs of the inscription, as in those of the curtain box, but in both cases these have been reduced to a brownish stain or to a cream color that reveals nothing of the original hue.

This box, then, was the most richly decorated object in the tomb. It must have been designed to contain something other than its heterogeneous contents which had perhaps been gathered up from the floor of the first tomb for transport. One would suppose that such a chest would be suitable for wearing apparel. The beadwork, to be described below, may be from a garment that belonged to the original contents. Why the silver bracelets were overlooked by the thieves, who must have removed the rest of the queen's jewelry, must remain a puzzle.² It may be that their gold-covered container had originally been placed in the chest and that they were somehow overlooked for this reason. However, it would appear that the original contents of the chest had been disturbed and were at the very least rearranged for transport to the new tomb.

The flower rosettes and intervening feather patterns of the box lid are like those which we have already found on the footboard of the bed and the second armchair. The inscription repeats those of the carrying-chair and reads: 'The Mother of the King of Upper and Lower Egypt, [the Follower of] Horus, [She who is in charge of the affairs of the *imst* (? harem)], She whose every word is done [for her], Daughter [of the God of his body], Hetep-heres.' In addition to these familiar elements, the design contains other patterns which can be paralleled to a certain extent in the inlaid vases from the funerary temple of Neferirkara, as has been stated in Chapter II. The upper strip is composed of a vertical symbol alternating with *šn* signs³ which seem to represent a seal ring, being round and not oval as in the case of the king's cartouche. The vertical symbol closely resembles the characteristic marking below the 'Eye of Horus'. It has exactly the same form on the heads of the hawks on both the bed

² The only other objects from the tomb which might have belonged to the queen's jewelry were three tiny crystal eyes. These were 6-7 mm. long. Two have a point blackened to indicate the pupil. They would appear to have fallen out of some inlaid ornament. They were examined again in July 1951 amongst the material stored in the Cairo Museum, but it has been impossible to locate the spot where they were found in the original record of the clearance of the tomb.

³ This cartouche-like symbol, *šn*, signifies protection for the royal person as in the inscription on the north end of the curtain

box (Pl. 11), where it is held in the claws of the vulture goddess Nekhbet over the king, or in the claws of the Horus hawk on Pl. 8 in the bed-canopy inscriptions, or in the Cheops relief illustrated in Fig. 5. It would seem that in the inscription on the north end of the curtain box the symbol in the claws of Nekhbet is intended to stand for the phrase *šn hꜣf*, balancing the *sꜣ hꜣ[f]* on the northern end of the box. That is Nekhbet protects Sneferu in one case while the Sun disk provides the protection in the other (cf. Chapter III).

canopy inscriptions (Pl. 8) and on the second armchair (Fig. 32; Pls. 18, 19). On the armchair this marking is formed by a separate piece of inlay which, if removed from its gold background, could easily be mistaken for the inlays in the design on the box lid. In the drawing of the box lid (Fig. 40), the projecting point at the side of this symbol has been somewhat blunted, since the type pattern was taken from one among several inlays which varied slightly in shape. It will be seen from the photograph in Pl. 35 c that two or three of the symbols are very much like the shape of the inlays of the hawk heads on the chair. Like the feather patterns, it would appear, then, that this symbol has its origin in the markings of the falcon which was identified with the god Horus. It is used alternatively here with a symbol for 'protection'.

The other border pattern is composed of emblems of the fertility god Min of Coptos. It frames the inscription, above and below, and forms the lower edge of the whole design. These Min emblems appear on the inlaid vases of Neferirkara (L. Borchardt, *Das Grabdenkmal des Königs Nefer-ir-ke-ter*, pls. 3, 5, 7) where they alternate with *šn* signs. These vases again employ the vertical feather pattern (as well as the scaled feather pattern not used in the Hetep-heres tomb). This is again found on a fragment of a similar vase from the Valley Temple of Mycerinus (Reisner, *Mycerinus*, pl. 65).

B. THE BEADWORK

Inside the chest with the inlaid lid, and evidently laid out on top of the other objects, had been placed a piece of beadwork which had decayed and fallen down over the whole area. It was composed of tiny ring beads, some of which had adhered in small groups so that the pattern could be reconstructed for a piece about 14 cm. × 15 cm. (Fig. 48 a). The various groups of beads were drawn in the record three times the size of the original. At that time it was recognized that there was an all-over pattern of lozenges against a blue ground. These diamond-shaped lozenges had a black border two beads wide, surrounding an area of yellow beads with a center of nine red beads. On checking over the record, it was found that this main pattern was bordered, probably at the top, by a variation in the pattern and coloring. Above the black-yellow-red diamonds came first a row of alternating black-bordered diamonds. One of these had a yellow background and no center, two had a yellow background and a blue center, and a third a yellow center on a blue background.

Wider areas of the blue background of the main design were left between these diamonds and the smaller lozenges in the next row above, forming a transition to the upper part of the pattern. These background spaces seem to have had centers which alternated between four gold beads and a more complicated form with a blue center and both gold and yellow beads around it (three gold at top and bottom, three yellow on each side). A zigzag line of single black beads formed the base for a smaller row of yellow diamonds in the next row above. The two central diamonds had gold centers. At the top of the design were pendent triangles with an outer border of yellow beads and an inner one of black. The space inside was in one case blue and in the other red. The background area between the yellow diamonds and the pendent triangles was blue as in the rest of the design, but the space in the middle seems to have had a center formed by four gold beads. The bead groups are listed in the original record under the numbers 879, 904, 916, 965, 977, 988, 989, 1104, and 1118. Samples of the beadwork appear in Pl. 41 a, b.

It is difficult to estimate the original quantity of these tiny ring beads. The impression gained is that there were not enough to form a complete garment but some of the beads may have decayed.⁴ Those

⁴ The variations between the different elements of the design and the way in which they interlock seem to preclude reconstructing the beadwork in a narrow strip such as is now known in the case of an Old Kingdom belt recently restored in the Cairo

which survived were in a very fragile state and of course only a small proportion of them remained together according to the original stringing (Pl. 41 b). The colors were faded and sometimes had entirely disappeared, but when they were first found it was possible to distinguish the different colors which made up the design. The adhering groups were found particularly along the north, west, and south sides of the bracelet box but had penetrated in amongst the gold sheets of this box. They give the impression that they came from a piece of beadwork laid on top of this box and perhaps extending over some of the other objects that had been placed in the chest with the inlaid lid. The beads were about 2.5 mm. in diameter and are shown at one-half scale in the reconstructed piece shown in Fig. 48 a. While an area of about 15×14.5 cm. is fairly well confirmed by the preserved groups which seem to form an interlocking pattern in this reconstruction, it is virtually impossible to guess how much more space could have been covered by the remaining loose beads. The reproduction of the colored drawing in Fig. 48 a unfortunately does not indicate the preserved parts very adequately since it does not differentiate the color values sufficiently. It should be repeated that the preserved groups justify the restoration of at least as large an area as this.

Obviously these ring beads were not arranged in the patterns and shapes known from Old Kingdom broad collars, bracelets or anklets, nor were any long cylinder beads preserved such as form part of these pieces of jewelry or the nets that covered dresses. Similar lozenge designs do occur on the belts of men, but in known examples (see Footnote 4) the beadwork of these belts was laid down over a metal band. No trace of such metal was found in the Hetep-heres deposit and the scattering of the beads seems to indicate that they were part of a larger surface than that formed by the narrow strip of a belt. Small bead bags are known from a late period but none seems to be represented in the Old Kingdom. All Old Kingdom bead dresses seem to have consisted of an openwork crisscross pattern of large cylinder beads with a rather simple border with pendent beads at the bottom (well preserved in the representation of the figure of Meresankh III on the east wall of her rock-cut tomb, G 7530-7540; Smith, *A History . . .* p. 169, fig. 64, where the drawing is too small to show the pendent beads at the bottom of the garment adequately). The shoulder straps were of more closely strung small beads, probably ring beads. They are only represented with cross stripes of alternating colors (in the case of Meresankh III: red, blue, red, white (?), blue, separated by narrow black bands with a white zigzag stripe reserved in the center of each black band).

Old Kingdom basketwork displays similar lozenge patterns to those of the Hetep-heres beadwork. These are well preserved in the tomb of Meresankh III on the east wall (Smith, *A History . . .* pl. 49 a)⁵ and in the tomb of Seshem-nofer III at Giza (G 5170; Junker, *Giza*, III, 1938, pl. IV). In the latter case, I noted in 1935 in the mastaba chamber in Tübingen, as well as on the colored drawings made by Bollacher when the tomb was first discovered, that the baskets carried by the personifications of Seshem-nofer's estates were decorated in diamond-shaped patterns of yellow, blue, and green, with the squares outlined in red when they fell on a yellow ground. However, the closest parallel to the designs of the Hetep-heres beadwork is in the complicated patterns imitating mat work which appear on the paneling

Museum (No. 87078) by Ahmed Youssef Moustafa. A photograph of this belt as it was found in the sarcophagus of Ptah-shepes at Saqqara was published by Drioton in *Bulletin de l'Institut d'Égypte*, 26 (1944), pp. 77-90, fig. 6; cf. also Brunton in *Annales du Service*, 47 (1947), pp. 125-133. The beadwork of the Ptah-shepes belt was attached to a gold band, and it would seem that similar bead strips fastened to copper bands are represented by the fragments found in the Giza burial chambers G 4733 E and G 2905 I. Similar bead belts are evidently repre-

sented in Old Kingdom royal statues and reliefs as in Reisner, *Mycerinus*, pl. 63 g-i and Borchardt, *Sahu-re* II, pl. 18.

⁵ It is to be hoped that the full-scale drawings of the tomb of Meresankh III, made by Nicholas Melnikoff, can be published before too long. There are also available for reference in the Boston Museum of Fine Arts the large oil paintings of Joseph Lindon Smith, as well as a number of water-color drawings which I made to record such details as the bottom of the garment of the queen, the basketwork, hieroglyphs, and so forth.

of Hesy-ra's Third Dynasty corridor chapel, particularly in the design on the right of pl. IX in Quibell's *The Tomb of Hesy*.

I should like to suggest that the Hetep-heres beadwork formed part of a garment. It might well have been attached to the upper part of a linen dress. Perhaps it formed a wide border to which beaded shoulder straps were fastened. No evidence remains any longer for these straps, except in the countless tiny ring beads that were recovered from the floor. The garment could, however, have resembled that of Meresankh III, but without the all-over net of cylinder beads which certainly did not exist in the Hetep-heres tomb.

C. THE BOX WITH THE OINTMENT JARS; OTHER VESSELS; THE HEADREST

The little alabaster ointment jars are described in Appendix II, which deals with the stone vessels. There were six cylinder jars and two handled jugs which had been placed in a small wooden box. They were probably supported by a kind of tray with holes as appears in Pl. 34 a. Only shreds of wood were preserved from the box. Its restoration depends entirely upon the fact that it seems impossible that these jars could have fallen as they did (Pl. 34 c) unless they were held together by some such container as is shown restored in Pl. 34 a. The small copper toilet spoon (shown with the ointment vessels in the drawing, Fig. 41, and at the bottom of the photograph in Pl. 40 a) apparently lay originally on the tray beside the ointment jars.

Another small alabaster cylinder jar (No. 1012; Fig. 137) with its lid was found lying under the bent-sided red pottery bowl (No. 34-12-63; Fig. 61; Type C-LXI f) which was partly under the gold sheet of the bottom of the bracelet box. In my restoration of the contents of the chest (Fig. 38) the cylinder jar is placed inside the pottery bowl, while both rest inside the alabaster bowl (No. 775; Fig. 146), which is tipped up against the headrest in the space under the flaring top of the copper basin. It has been suggested at the beginning of this chapter that the alabaster bowl with its contents slid out of the decaying side of the box before the whole collapsed. When the bed leg next fell into the alabaster bowl, it may well have turned over the pottery bowl on top of the cylinder jar. The bracelet box could then have slid down on top of it and the inlaid lid of the outer box then broke up over the whole.

Certainly this extra cylinder jar was never in the small box with the set of ointment jars. It may have been picked up from among the disturbed contents of the first tomb and added to the rather miscellaneous contents of the chest. The little box with the other vessels seems to have stood on top of the well-preserved ewer and basin which overturned as the contents began to slide out of the chest. The details of the copper ewer and basin are shown in the drawings in Fig. 42 and the photographs on Pl. 34.

The large pottery wine jar (No. 34-4-8; Fig. 58) is listed under Type A-II b in the discussion of pottery, Appendix I. To the west of it, in the chest, stood the headrest which must originally have been used with the bed (Pl. 39; Fig. 43). The base of the headrest was 17.2 cm. long and the total height was 20.5 cm. The base had a curved top, being semicircular in section. This and the fluted column were each covered with a sheeting of thin silver before they were fitted together. The curving upper piece which formed the actual rest for the head was covered with two pieces of gold. The top piece was turned down over the under side 2 mm. and fastened with tiny gold nails. The silver of the base was formed of a curving upper sheet, cut out to take the base of the fluted column, and two semicircular end pieces. The silver of the column was pressed over the flutings carved in the wood. The small rectangular block at the top of the column was covered with separate silver sheets on top, sides, and bottom. The top and

bottom silver sheets were cut out to take a wooden tenon which extended up from the column, passed through the supporting block and entered the gold-covered, curved upper piece. A similar tenon extended down into a socket in the base, to fasten the column in place.

Mr. Stewart has pointed out that in spite of the beautiful proportions of the headrest it is not exactly symmetrical. The curved support for the head is 3 mm. wider on one side than it is on the other. None of the wood was preserved, but the construction was clearly indicated by the metal covering sheets which lay collapsed close to their original positions (Pl. 39).

D. THE GOLD BRACELET BOX AND ITS CONTENTS; THE TOILET ARTICLES

As can be seen in Fig. 38, the gold-covered bracelet box stood in the southwest corner of the chest with the inlaid lid. Apparently packed in the narrow space between this box and the west side of the chest were the toilet articles: razors, small vessels, and so forth. As has been remarked in Chapter II, the razors were probably originally fitted into a flat case especially made for them as is shown in the wall paintings of the chapel of Hesy-ra. One of the gold vessels, evidently belonging to this set, was found in a box of pottery in the southern part of the tomb, and one of the razors had fallen into the copper basin and was found adhering to the bottom of the copper ewer. These objects were therefore placed loose in the chest, and it would seem likely that they were gathered up from the disarranged contents of the original tomb and placed in the chest for transfer to the new tomb.

The box which contained the queen's silver bracelets (Fig. 44; Pls. 36-38) was covered inside and out (except for the bottom where there was only one sheet of gold) with horizontally ribbed sheets of gold, bordered with mat pattern. It was 41.9 cm. long and 33.7 cm. wide. The height measured 21.8 cm., including the lid. The lid had a small ivory button in the center for lifting it. On each side of this button ran a horizontal inscription in raised hieroglyphs. The portion on the left reads: 'Box containing rings', while that on the right has: 'Mother of the King of Upper and Lower Egypt, Hetep-heres.' Immediately below the right-hand inscription, a scribe has written in black ink: 'Rings', perhaps in the course of checking over the equipment.

Mr. Stewart describes the construction of the box and its restoration in his notes as follows:⁶

All evidence of construction was obtained from the gold sheets as there was no wood found except the mass of decayed fibers running through the silver anklets, evidently the remains of the thick conical rods on which they were placed.

The gold inner lining of the base board showed pressure marks and change of color, proving that the sides of the box had rested upon it for a distance of 5 mm., that is, half the thickness of the side boards. The base must therefore have been mitred into the sides as shown in the section at A (Fig. 44). The base lining also showed pairs of holes centrally placed on each side and evidently made by pegs driven up from below through the mitre. Pegs must similarly have been used to fix the sides but would have been inserted before the outside of the box was covered and would be hidden by the gold casing. On one of the long sides, the inner lining showed traces of peg holes just on the edge, placed in pairs about 2 cm. from the top.

The lining of the long sides turned in from 2 to 3 mm. at a right angle; that of the short sides turned at a mitre angle of 1 mm. There was a pressure mark 3 mm. from the mitre. This proves a butted mitre joint as shown in the drawing where dotted lines indicate the gold lining at B. The outer gold casing overlaps at the corner and was therefore put on after the box was lined with gold and assembled.

The lining of the cover showed the positions of the two battens, and their curved section was evident from the form taken by the gold covers of the battens themselves after straightening out bulges in the metal. This was afterwards confirmed by the finding of the batten ends which exactly coincided with the supposed section and had an overlap which fitted on to a patina mark on the batten covering. Two of the gold tubes, T, T on the drawing, were actually found in position and the remaining two were found in positions which indicated that they had fallen out from corresponding holes on the other side.

The decayed wood found inside the anklets indicated tapering rods tongued into flat disks. The disks themselves showed by the evidence of the gold that the smaller ones were removable on a square tenon and that the larger ones at the north end of

⁶ The word 'anklet' has been allowed to stand in this quotation, although it is now believed that the rings are bracelets.

the box had been fixed to the rods. Only the edge of the large disk B and that part of the inner surface extending beyond the diameter of the rod C had been covered with gold. The outer side, which was the base when the rods were set upright to place on or remove the anklets, was not covered with gold.

The lining of the bottom of the box shows peg holes which must have been attachments of some interior fitting but we have no direct evidence of this. The holes and pressure marks on the gold indicate a board or support running across the box at the south or right end at 2 cm. from the end and fixed by these pegs, 4 mm. in diameter, driven up from underneath. The holes at the left end are arranged in two rows. One at 7 cm. from the end had four pegs, the second at 8.5 cm. from the end had three holes. These are indicated by black spots on the drawing of the bottom lining. We can only surmise what form of support was used to keep the tapered rods in place or what was the purpose of the four gold tubes inserted in the long sides of the box at 2.5 cm. from the top. Our reconstruction of the support for the rods was therefore designed to agree with the peg holes in the bottom of the box, the diameter of the large ends of the rods and the square tenons of the smaller ends. The large space between the support and the left end of the box is more than enough to enable the hand to be inserted and lift out the rods by their large ends. Possibly other toilet articles were packed in this space such as the gold blades which were discovered some little distance away.

There must have been some method of fixing the rods in place to prevent them from moving when the box was carried about but there was no evidence to guide us in reconstructing this. The ivory button handle on the top of the box was intact but in such a decayed condition that a new one had to be made. The length of its tenon agreed exactly with the thickness of the box top plus the thickness of the ivory disk so that there was no possibility of fixing it in place by means of a transverse pin under the lid. It was probably fixed by some adhesive and we have so fixed the new one. The lining of the lid was pierced by a narrow hole agreeing with the size of the ivory tenon.

Most of the gold sheets showed traces of gesso under the rill pattern. In replacing them on the reconstructed box, we used a paste of plastic wood and necol. When the gold had been pressed down on to this by means of a felt pad, it was left until the paste was half dry when the sunk lines were run over with a wheel lining tool specially made to fit the width of the lines.

The box originally contained two rows of ten silver rings, but a number of them were too badly decayed to be replaced and only parts of six appear on the second cylinder in the photograph on Pl. 38. Some fragmentary material was graciously presented to the Expedition by the Egyptian Department of Antiquities in 1947 and is now in the Boston Museum of Fine Arts. A reproduction of a complete bracelet is being prepared for exhibition in Boston on the basis of this silver and the accompanying inlays. Except for a selection of pottery types which were allotted to the Expedition in 1939 and which are now in Boston, all other objects from the Hetep-heres tomb are now in the Cairo Museum. The rings were originally termed anklets by Dr. Reisner, and their inlaid designs were thought to represent dragonflies. However, it has been pointed out in my *History of Egyptian Sculpture and Painting in the Old Kingdom*, p. 146, that it is more likely that they are bracelets, while Louis Keimer established that the designs really represent butterflies. The size of the rings supports the evidence from Old Kingdom reliefs that these were worn on the forearm. Keimer has reproduced in color the butterfly design and commented upon their identification in an article, 'Pendeloques en forme d'Insectes', *Annales du Service*, 34 (1934), p. 194, pl. XV. The rings are hollow shells of thin metal and are graded in diameter from 9 cm. to 11 cm. (6.8 to 7.7 cm. on the inside). The metal was analysed for Mr. Lucas by Dr. H. E. Cox of London and found to consist of 90.1 per cent of silver, 8.9 per cent gold, and 1.0 per cent copper.⁷

The inlays of the bracelets are of carnelian, turquoise (ranging in color from sky blue to a greenish tone), and lapis lazuli. Mr. Lucas found that the lapis lazuli had in a few places been eked out with plaster or cement painted a dark blue to match the stone. The body of the insect and the bands on the wings are lapis lazuli, the head and wider bands on the wings are turquoise, while the tail is carnelian, as are the small round disks which are placed in the spaces between the four butterflies (see Pl. 38).

The smaller toilet articles were found under the gold lining of the bottom of the bracelet box and to the east of it where several of them had worked themselves slightly under the edge of the alabaster sarcophagus. They can be seen in position in Pls. 40 d and 41 c. One of the most interesting of these

⁷ See the discussion of the silver from the Hetep-heres tomb in A. Lucas, *Ancient Egyptian Materials and Industries*, 3rd ed. (1948), pp. 279 ff.; also 2nd ed. (1934), pp. 204 ff.; also the

important study of the occurrence and use of silver in ancient times by R. J. Forbes, 'Silver and Lead in Antiquity', *Ex Oriente Lux*, *Jaarbericht*, no. 7 (1940), pp. 489-516.

objects was the silver boat-shaped receptacle, the nature of which remains uncertain. Mr. Lucas found it impossible to consolidate since no core of metal remained (No. 1105; Pl. 41 d; Fig. 45). There were also three little gold dishes, two badly decayed ivory bracelets, a copper needle, a gold manicuring implement, and thirteen copper and gold razors of two different types. The silver vessel (No. 1105) was perhaps some sort of a container for cosmetics. It also appears on the plan of the chest in Fig. 38. It was 13.5 cm. long and tapered from its greatest width of 3.3 cm. to 2.3 cm. at one end. Two little gold dishes (Nos. 1146, 1149) were identical, with a diameter at the rim of 8 cm. (Fig. 45; Pl. 40 b). With them should be considered the little spouted cup (No. 1084), which was found in a box of pottery in the southern part of the tomb, since this originally seems to have formed part of a set of three (Pl. 40 b; Fig. 45). It had a maximum diameter, with its spout, of 10.5 cm. There was also one small dish of alabaster in the chest with the inlaid lid, not yet mentioned. It had a rim diameter of 8 cm. (No. 1153) and is listed in Appendix II with the other stone vessels under Type OK X (Fig. 45).

The two ivory bracelets (No. 1106; Fig. 45; Pl. 41 a) were approximately 6.6 cm. in diameter and had a thickness of 1.1 cm. They were broken in several pieces and the ivory was in a very fragile condition. The tiny copper needle (No. 1116; Fig. 45; Pl. 40 a) curved up at the end and was about 4 cm. long. A second small gold implement (No. 1117; Fig. 45; Pl. 40 c) was apparently intended for cleaning the nails. It was 7 cm. long and 0.18 cm. thick. The razors were of two types. In one case the blade was in the form of a rectangular piece of metal with the sides beveled down from a thick center to a sharp edge. The four copper examples of this type (Nos. 751, 1112, 1113, 1152) are shown in Fig. 45 and Pl. 40 a. The three gold blades (Nos. 1151, 1159, 1161) are illustrated in Pl. 40 c and in Fig. 45. The gold blades measured 5.7 by 2.8 cm., while the copper examples were a little larger, ranging from 6.3 to 6.7 cm. in length and having a width of 3.3 cm. The maximum thickness was 3 mm.

The second type of razor consisted of a flat blade with rounded end, fastened by means of a projecting tang to a wooden handle. The wood was partially preserved in the case of one of the gold razors (No. 1149) and on three of the copper examples (Nos. 1111, 1147, 1148). The probable restoration of the shape of the handle is indicated in Fig. 45. They closely resemble the razors set in a flat case in the wall painting of the Third Dynasty chapel of Hesy-ra (J. E. Quibell, *The Tomb of Hesy*, pl. XXI). The two gold razors (Nos. 1120, 1149) are shown in Pl. 40 c and Fig. 45. The five copper pieces (Nos. 1110, 1150, 1147, 1111, 1148) appear on Pl. 40 a and Fig. 45. The gold blades were 8 cm. long. The copper blades range in length from 8.5 to 10.6 cm. The thickness varies from 0.3 to 0.75 cm. In addition to these, there was also a plain rectangular piece of copper (No. 1121; Pl. 40 a; Fig. 45).

With these razors should also be considered a group of flint blades which were found scattered over the southern area of the tomb. They had originally been placed in several of the boxes of linen and pottery. There were thirteen long flints (10 cm. or a little longer) with rounded ends (Pl. 41 e). Nine flints were rectangular in shape (6 to 7 cm. long). These are shown on Pl. 41 f.

E. THE CASE WITH THE WALKING-STICKS

In the area west of the chest there was one other confusing group of fragments of gold and inlays. It can be suggested that these composed a tubular leather case which had metal-covered disks at top and bottom. According to the reconstruction in Fig. 46, this would have contained two long staves covered with ribbed gold casing and a third wooden stick inlaid with a pattern of Min emblems. In Fig. 19 and Pl. 33 the much torn metal disks can be seen lying against the easternmost of the palm capitals from the rear poles of the carrying-chair. The gold ribbed casing of the two staves lay along the

western face of the collapsed bracelet box (Pls. 33 b, 36 b). In Pl. 33 a are photographed the metal disks and the gold casing of the walking-sticks. The gold ribbed covering of the latter, although in many pieces, could be assembled for a length of 102 cm. for each staff because of the gradual increase in diameter from the bottom (1.7 cm.) to the top (3.5 cm.). The disks were in pairs, respectively 11.5 cm. and 14.5 cm. in diameter. The smaller pair (Nos. 537, 544) was composed of a dark patinated metal in very brittle condition, either silver or electrum. These sheets enclosed a decayed disk covered with plaster (No. 540). The face of the upper sheet (No. 537) still preserved traces of inscription in relief, reading: 'Mother of the King of Upper and Lower Egypt, [Follower of] Horus, Hetep-[heres]. . . .'⁸

The smaller pair of silver sheets lay on top of two bright gold sheets (Nos. 545, 546) which also enclosed a disk of decayed wood. Lying to the west of these, directly on the floor and underneath all remains of the second armchair, the bed, and carrying-chair, were parts of an inlaid wooden staff. The scanty remains of the staff were oval in section, with a width of 2.5 cm. and a thickness of 0.8 cm. One strip of this inlaid wood can be seen in the lower right corner of Pl. 32 b. Although the design employed Min emblems, as did that of the inlaid lid of the chest, it differed in that these emblems were separated by three small vertical inlays. Like the chest, the center of each Min emblem was formed of a carnelian disk. The design ran vertically up the staff when it stood upright since in such a narrow space the shape of the Min emblems necessitates a design composed in a horizontal band which could only be viewed as such if the staff were laid down on its side (Fig. 46). Four of the elements of this design (No. 513; lying face up over four elements face down) ran in a curving north-south line under the gold covering of the north end of the bed, just east of the western of the two palm capitals of the rear end of the carrying-chair poles. One (No. 950 with the same pattern on the other side) also lay under this same gold sheet. Another (No. 536), set in shriveled wood but with no pattern on the back, was mixed with the box-lid inlays beside the eastern of the two palm capitals. Two more elements set in wood and with the same pattern on the other side (No. 904) came from an area near the northern end of the gold sheet covering the east side of the bed frame. They were at the southwest corner of the collapsed gold bracelet box and mixed with the beadwork (some of which was given the same number). These add up to eight elements (fifteen in all, counting both faces of the staff) which could be certainly identified, one (No. 536) having preserved no design on the other side. They indicate that the staff had rolled under the northern end of the bed, perhaps already broken into several pieces, before the final collapse of the bed.

One other small fragment had part of this same design, the end of one Min emblem and two vertical inlays set in decayed material which was almost certainly leather. In this case the design seems to have been placed horizontally. The fragment was found about 40 cm. north of the metal disks among the wooden fibers of the decayed floor boards of the bed. It has been restored in Fig. 46 as part of the leather band which ran around the silver-covered wooden disk to form a cap for the case. It suggests that the case itself was made of leather which has completely decayed. A considerable number of the Min emblems were found with no indication of whether they had been accompanied by the three vertical

⁸ A third gold disk (No. 538), also measuring 11.5 cm., lay on top of the pile a little north of No. 537 (Pl. 33 b). It had traces of wood under it but not preserving any shape as in the case of the wooden disk under No. 537. Nor was there a second metal sheet as in the pairs 537, 544, and 545, 546. I am at a loss to suggest how it could be combined with the other two metal sheets 537 and 544 which are of the same size, even after examining the material again in July 1951. It might just be conceivable that there was a double covering of metal on the under side of the lid of the case and that 538 was laid over 544, pulling loose to fall

a little north of the pile of debris as the case decayed, but this does not seem very likely. In Pl. 33 a it is Nos. 538 and 544 which are photographed lying beside 545 and 546. No. 537 was in too fragile a condition by that time to be photographed.

¶ In preparing the above text, I had overlooked the fact that W. B. Emery, in *The Tomb of Hemaka, Excavations at Saqqara* (1938), fig. 12 and p. 41, no. 435, illustrates a large cylindrical leather bag with wooden fittings which contained wooden staves. This First Dynasty example was 1 m. high and 15 cm. in diameter.

separating inlays of the staff design. There were enough of these to fill in the missing elements in the patterns of the inlaid lid of the chest, as well as to provide five more Min emblems to finish out the walking-stick to the same length as the gold-covered sticks. There would also have been enough to complete the design that circled the leather cap of the case for the walking-sticks.

I have already anticipated in Chapter II the conclusion that the two gold-covered sticks and the inlaid staff were standing in a leather case which had been placed leaning against the east side of the bed and the back of the carrying-chair (Fig. 20). One must presume that the leather had decayed more quickly than the wood of the furniture, allowing the staves to fall out. The inscribed silver-covered lid of the case fell on top of the gold-covered disk which formed the bottom of the case. In the drawing in Fig. 46, I have assumed that the cover of the case had a band of leather attached to the silver-covered wooden disk and that the leather was inlaid with Min emblems separated by vertical inlays. A small piece of this leather cap (No. 574) fell, or was blown by an air current created by the collapse of the other pieces of furniture, some 40 cm. to the north of the other parts. It probably rested on the decaying woodwork of the bed or the carrying-chair until this subsided to the floor of the tomb.