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Egypt Third Issue 1872 and 1874-75

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THESE stamps are probably the least studied of all the early emissions of Egypt. Yet the design is the most truly artistic this country has produced and the central view of the sphinx and great pyramid, in its grouping and rugged aspect, gives a more faithful impression of the originals than any seen on the more usually admired stamps (Plate I. 1). Defective reproduction, which makes difficult the philatelic study of detail, is largely responsible for this neglect but the cold reception with which the issue was greeted no doubt prejudiced collectors in the 'seventies and the bad name then given to the stamps has stuck to them ever since. The first reference to them in English literature would seem to be in *The Stamp-Collector's Magazine for February 1872*, where we read 'These stamps are lithographed and their execution is very poor, if we may judge from the blurred specimens before us'. In the succeeding number of this Journal the execution is alluded to as 'beneath criticism'. The writer goes on to say 'The paper is rough and unsurfaced, and the inks employed are so thick that the entire design is more or less blurred, and the first copies now before us might be supposed to have been obtained from worn-out stones'. This description is of value as it supports the contentions about to be made. Also helpful is the statement 'as many varieties of this carelessly printed set are likely to occur, we are anxious to put clearly on record the exact tints of the first arrivals.

5 para	red-brown	2 piastre-deep	chrome yellow
10 para	bright mauve	2 ¹ / ₂ piaster	purple
20 para	Prussian blue	5 piastre	emerald green'
1 piastre	rosy red		

The inscription is alluded to as 'most scampishly done . . . the letters being crowded one over another, and the letter T in the word POSTE is represented by an inverted L'. This illuminating article finishes with the gloomy forecast 'A short life, if not a merry one, may be predicted for the new series'.

In March 1872 *The Philatelist* also did its best to damn the stamps by announcing 'For once the philatelic writers seem in complete accordance, uniting one and all in abuse of the new Egyptian issue. And with good reason; they are a very inferior semi-reproduction of the superseded type'.*

Small wonder that these stamps remained under a cloud. J. B. Moens in his Timbres *d'Egypte* (Bruxelles 1880) also stated that these stamps were printed by lithography.

F. J. Melville in his handbook *Egypt* (London 1915) took an opposite view. 'We should call special attention to the fact that the issue of 1872 and subsequent editions in the same design were not produced by lithography as was formerly, and is sometimes even now stated, but by surface-printing'.

Between the date when Moens wrote and 1915 'remainders' were sold for the first time by the Egyptian post office, and it is these stamps which mainly have been studied in mint condition. They, no doubt, comprised the later printings which therefore are the printings usually represented by 'blocks' in present-day collections. The following are the number of stamps disposed of, as given in the 'Memorandum of Postage Stamps, Post Cards and Postage Due Stamps, no longer current and offered for sale' on December 31, 1888, when the currency was changed from para to milliemes. 'Third Issue:-

5 para-56,070	2 piastre-21,830
10 para-68,850	2 ¹ / ₂ piastre-27,970
20 para-14,250	5 piastre-11,330.
1 piastra-17,810	

^{*} The nomenclature for these two printings hitherto employed is no longer suitable. Most of the stamps issued in 1872 were printed at the Government Printing Office in Cairo and cannot therefore be entitled Penasson or

Alexandria prints. This fact has been established by documents found by Ibrahim Chafter in thr archives of the Post Office in Egypt

There is no note of how many of the 5 and 10 para values were over-printed stamps of 1879, nor are the stamps distinguishable as 1872 or 1874 printings and, of course, no mention is made of the method by which the stamps were produced.

For the past forty years the emphatic statement by so respected an authority as Melville has abolished all discussion about the process by which the third issue was printed, but when in 1944, I began seriously to study the issue in question, in collaboration with J. C. Besly, it seemed wise to review the accepted opinions in a mood of philatelic doubt. Could the early writers have been so unobservant or unskilled as to mistake surface printing for lithography, was the first doubt which entered our minds. Plate 1.2 is evidence that lithography was under consideration when plans for this issue were being made. The mint blocks, of all values, with which we were acquainted were all undoubtedly typographs: the design in colour had not infrequently bitten deep into the paper, and the margins of many of the lines were intensified by a heaping up of the ink. This latter characteristic is, in our opinion, the essential which completes the recognition of a surface-printed stamp, as it is never seen, in typical form, on prints made by any other process. We understand that the technical term for this forcing of the ink outwards from under the raised design on the printing surface is 'squash'. We began, therefore, to search among the single copies, mint and used, which we possessed for specimens showing no evidence of 'squash'. The work started with the 20 para of 1872, this being the stamp of which I possessed the greatest amount of material. Soon we discovered that the few copies bearing dates early in 1872 resembled those anathematised in The Stamp-Collectors Magazine, of 1872. They are blurred and their execution might well be described as 'beneath criticism'. They show no sign of being surface-printed and they have now been accepted as lithographs, by Sir John Wilson, by John Easton, by the expert at the London School of Printing and by an authority whose opinion we all respect, our dear departed P. L. Pemberton. The colour of the stamps is a dull pale blue.

The Prussian blue stamps listed by the Stamp Collectors Magazine as the earliest 'tint' are mainly clearly printed and attractive in appearance. Our used copies bear slightly later dates than the blurred prints but are probably contemporary with them. They also are lithographs. Some copies are heavily inked, so that much detail of the design is lost.

Lithographs in other shades of blue have been found used throughout 1872. Not till February of 1872 do typographed copies of the 20 para begin to appear (earliest date February 8th, Ibrahim Chaftar collection). The lithographs we have seen carry dates from January 7, 1872 to November 4, 1875, though the majority of legible dates, twenty in all, are early in 1872. They are perforated both $13\frac{1}{2}$ and $12\frac{1}{2} \times 13\pounds$, by single-line machines. The blocks of the typographed stamps known to us do not show simple and compound perforations together. So far the only multiple pieces of the 20 para lithographs which have come to light are one mint block of four (I. Chaftar) and three pairs and a strip of three, all postally used. One of these is a vertical pair 'imperforate between', with watermark inverted.

PLATE I. 1.-The Sphinx and, on the right, the second Great Pyramid (of Khafra), as seen when the stamps of this issue were designed.

PLATE I. 2.-Essay by Penasson of Alexandria. The guide lines at the four corners are typical of lithography and were to facilitate the alignment of transfers to the stone. In his design the inscription at the top is that seen on the stamps of the previous issue (1867).

PLATE II. 1.-The need for a Vs pt (2 piastra 20 para) stamp in this series arose from the terms of the Convention signed by Egypt and Austria which became operative on July 23, 1868: this allowed mail to Austria to be franked to destination by stamps of Egypt: the rate for single letters was 2\$ pt.

PLATE II. 2.-1874. 2 pt bisected for use at Gedda: the date stamp with year omitted, struck in blue, is known only in April 1875; the marking shows the two characteristic defects, (i) flattening of the circle between the words 'Paste' and 'Gedda', and, (ii) break in circle under 'Gedda'-o these began to be seen in 1873.

PLATE III. 1.-1872. 2 pt. A white flaw joins the two dots to the line above them at the left extremity of the uppermost inscription. This flaw is constant on all 2 pt stamps of 1872 and must therefore have been on the die.

PLATE III. 2.-1874. 2 pt. No flaw in the top panel. It would seem likely that the moulds for 1872 and 1874 were struck by subsidiary dies.

PLATE IV. 1.-1872. 5 pt. The upper outer frame line at the N.W. corner is split horizontally to a greater or less degree on all stamps of this value: the panel containing the numeral 5 at the N.E. corner is undamaged: there is a white spot placed centrally beneath the white line under 5 at the N.E. corner.

PLATE IV. 2.-1874. 5 pt with white spot beneath the white line under 5 in N.E. corner, similar to prints of 1872. The upper frame line on the left is not split. The decorated border proves this to be a stamp O/1874.

PLATE IV. 3.-1872. 20 para, (i) Top row: four examples of typical white intrinsic flaws, resulting from defective plaster of Paris moulds in which the stereos were cast; No. 2 is from the third vertical column of the sheet, No. 3 is stamp 20 on the sheet, (ii) Second row: strip of four showing both intrinsic and extrinsic flaws. Defective make-ready (decoupage) is responsible for the diffuse white area running horizontally across the strip. (Hi) Third row: four examples of extrinsic flaws, resulting from damage to the completed stereos; Nos. 1 and 2 are 'make-ready flaws', caused by injury to the stereos while being arranged in the forme by means of a metal tool; Nos. 3 and 4 are 'running flaws', the result of rupture of the marginal lines of the design caused by pressure of the roller during the run, or printing, (iv) Fourth row: four typographs which show constant intrinsic flaws (the two centre stamps show extrinsic flaws in addition), (v) Fifth row: four lithographs which show the flaws illustrated in the fourth row, in the same order, each with retouched outer frame lines (= four 'married couples').

PLATE V. 1.-Die II. Used to produce all the values other than 1 pt, both in 1872 and 1874-75. Note how well the various portions of this composite die join together on the 10 para stamps but not on the other values.

PLATE V. 2.-1872. 20 para. Lithograph: retouched under POSTE and further to the left where the lower outer frame line is double and the white frame line is narrowed.

PLATE VI. 1.-1872. 20 para. Lithograph in the Tapling collection. A stamp from Stone A, corresponding to No. 200 on the typographed sheet, which shows the large white intrinsic flaw in the headdress of the Sphinx. Note the transverse white streak, a silicon flaw, and the split bottom frame line- the former identifies this as a lithograph, the latter are typical of Stone A stamps.

PLATE VI. 2.- 1872. 20 para. Lithographs, Stone X. (i) With P of POSTE completed by retouching; (ii) With P of POSTE complete and a further retouch above this to reduce the vertical white line to normal proportions. The upper outer frame line of the second stamp is markedly deformed as the result of retouching.

PLATE VII. 1.-1872. 5 para. Typograph showing extra line of colour outside the design of the stamp, on the left, caused by a metal 'spacer' inserted between the loose stereos, when they were assembled in the forme, having risen out of place and taken ink from the roller. Note that this extra line of colour is longer than the vertical measurement of the design.

PLATE VII. 2.-1872. 1 piastra. Typograph. The top stamp is from Daughter Die I A 1 group (b). The second and third are Daughter Die IB (First State); fourth and fifth stamps are Die IB (Second State).

PLATE VII. 3.-1872. 1 piastra. Lithograph. The frame line at the S.W. corner shows a pronounced retouch. The stamp is from Daughter Die A.

PLATE VII. 4.-1872. 5 piastra: The only known tete-beche in this printing. Previously thought to be from the sheet of 1874

In addition to the dull pale blue and Prussian blue stamps, we recognise blue lithographs which we subdivide into (a) rough, and (b) clear prints.

We next turned our attention to the 1 piastra stamp of 1872 and here again we found undoubted lithographs. These have been examined and accepted at the London School of Printing. To the late R. J. C. Thompson we owe gratitude for the help he gave by maintaining the liaison between us and these experts.

Of the 1 piastra lithograph we have so far listed nearly three hundred copies; of these about fifty show postmarks with legible dates. The earliest date is January 3, 1872, the latest some day in January 1876. Throughout the period between these two dates used copies of the 1 piastra typographed are relatively plentiful, so it should be safe to assume that stamps produced by the two processes were not only used but printed concurrently. Lithographed 1 piastra stamps are found dated in most months of 1875.

As with the 20 para, the 1 piastra lithographs are found perforated both $13\frac{1}{4}$ and $12\frac{1}{2} \times 13\frac{1}{4}$. Our earliest and latest dates are on copies with the compound perforation. Both the 20 para and 1 piastra stamps perforated $13\frac{1}{4}$ all round are distinctly rarer than those with the compound perforation; and this finding also holds good for the two values printed by typography. I possess one unused copy of the 20 para lithograph unperforated all round.

There is a pair of the 1 piastra lithographs in the Stead collection and one in the Hinde collection; Besly possessed what we believe is a rejoined pair; Chaftar has a strip of four used Metilino February 15, 1872; otherwise we have seen only single copies. Of these, twelve copies are used on covers, two of which covers, in addition, bear surface-printed stamps of other denominations. A cover in the Hinde collection, dated August 1872, also bears an Italian 40c. stamp and went from Cairo to Italy. A specimen in the Mackenzie-Low collection is postmarked Smirne, dated June 3, 1873, and the cover is addressed to Constantinople.

The 1 piastra lithographed stamps may be classified as:-

- (a) Brown-red-possibly the first printings: John Easton states these stamps suggest the composition of the ink had not yet been satisfactorily determined when they were printed.
- (b) Rose-red-clear impressions.
- (c) Dull rose-pink-very blurred prints.
- (d) Deep rose-red

The earliest dated postmarks are on brown-red stamps, which is not in conformity with the listing of 'tints' given in *The Stamp Collectors Mag*azine for March 1872.

The late use of the stamps printed in 1872 is of interest, in view of the fact that printing of the 1874 issue started at Boulac before the autumn of that year. In the I. Chaftar collection there are two copies of the 5 piastre, 1874, used in October 1874, and we have seen other copies of this stamp used in November and December of the same year. Documentary evidence unearthed by Chaftar proves that the following values-10 and 20 para, 2, 2¹/₂ and 5 piastre-were notified as having been supplied to the Ministry of Finance from the Government Printing Office on October 6, 1874. In the same letter it is stated that 'the 5 para and 1 piastra values are not yet ready'. (*L'Orient Philatelique*, January 1949).

Of the remaining values printed in 1872 we have seen no undoubted lithograph of the 5 para or 10 para, but our material is only small in amount. Copies of both values bearing early dates are rare, as these low value stamps were required mainly for the franking of newspapers, circulars and local letters within the town of origin. We have seen only a few on covers and these were all examples of typographed stamps.

The values above 1 piastra have so far yielded no copies which look like lithographs, but the 2 piastre stamp is difficult to study owing to the lack of detail given by its yellow ink. Most copies of the 2 piastre are undoubted typographs.

Our next problem was, were the stamps printed in 1874 produced from the printing surfaces employed for the stamps issued in 1872. The answer is NO. (Plates III and IV.)

It is obvious that the stereos of the 5 para were not the same for the two printings, as the stamps of 1875 all have the side labels transposed and inverted, whereas the 1872 prints show the design normally arranged.

The 10 para stamps of 1872 show the design in its most correct condition, even the P of POSTE being complete (Plate V. 1). The stamps of 1874 all exhibit two constant defects: the top inner white frame line is broken for approximately half its length, from above the N.W. crescent to a short distance to the right of the apex of the pyramid; the lower inner white frame line is broken under EUIE in the bottom label. These defects obviously occurred on the composite die, reassembled for this value in 1874; probably caused by accumulations of dirt in what should have been incised lines.

Our study of the 20 para stamps soon convinced us that the printing surface employed for the earlier issue also was not used in 1874. The 1872 stamps show many characteristic flaws, of which we have recorded over one hundred different and apparently constant varieties, not one of which have we been able to recognise on over four hundred copies of the 1874 20 para.

The illustrations I give differentiate the piastra values of 1872 and 1874. The constant white flaw in the upper label of the 2 piastre of 1872 is never seen on the stamps of 1874. The thickened lower inner coloured frame line of the 2½ piastre of 1874 is characteristic of this printing. It has been strengthened beneath the word POSTE and the first three letters of the word KHEDEVIE. The split upper frame line of the 5 piastre of 1872 gives a greater vertical measurement on the left than is normal for the stamps of 1874. Other points of difference are noted under the illustrations.

CLASSIFICATION OF FLAWS

Flaws on the typographed stamps, of all values (1872) I have classified as (a) intrinsic, in that they have arisen during the making of the stereos; and, (b) extrinsic, because they are the result of subsequent damage to the completed stereos.

INTRINSIC FLAWS (Plate IV. 3, top row) take the form of colourless areas on the stamps, which are often roughly circular in outline, caused by air bubbles or hard lumps in the plaster of Paris, of which the moulds for the 1872 stamps must have been formed. These flaws, 'picks', are typical of plaster moulds and as none like them is seen on the 1874 stamps I suggest that this material was not employed for the later issue and that the stereos were cast in moulds prepared from papier mache ('flong'). The strikingly different appearance of the two groups of stamps would be accounted for in this way; for, whereas the 1872 typographs are reasonably clear in detail and often deeply impressed into the paper, the 1874 stamps are nearly always blurred and so superficially printed that it is difficult to say whether all are typographs or whether some are the product of lithography. The 2 piastre stamp is an exception to this statement, as the printing of 1874 is superior in all respects to that of 1872 (Plate III).

EXTRINSIC FLAWS (Plate IV. 3, second and third rows) are mainly the result of damage to the outer frame line of the design, which (a) is broken or merely nicked or deformed but at other times (b) is completely disrupted. These two groups of extrinsic flaws arise in different ways: the former (a) are the result of adjusting the position of the loose stereos, by means of a tool, when arranging them in the forme and are therefore known as make-ready flaws; the latter (b) are running flaws, in that the metal edge of the stereo has given way as the result of pressure by the roller during the process of printing. Make-ready flaws show the damaged metal displaced inwards, whereas running flaws show the metal cast in all directions but mainly outwards, such damage suggests that the stereo metal was unduly soft. Many of the extrinsic flaws seen on these stamps are typical of printing from loose stereos.

Flaws, both intrinsic and extrinsic, are seen on all values of the 1872 series, but in no case have I been able to duplicate a flaw found on either the typographed or lithographed printings with a similar flaw on the stamps of the 1874-75 series.

For these reasons I came to the conclusion that the stereos used in 1872 and in 1874-75 were not identical, and that the material employed for making the moulds for the two printings was also not the same.

THE DIES

I now turned to the question of dies and the ways in which the numerous printing surfaces were prepared.

Melville in his book on Egypt states, 'all the stamps had a common die for the central portion of the design'. Credit for the recognition of two essentially different dies, used to produce these stamps, must go to H. G. Watson (*P.J.G.B.*, June 1, 1916).

DIE I was used to produce the 1 piastra stamp only, and was the only die employed to form the moulds for this value, in 1872 and in 1875. On it (a) the horizontal lines on the pyramid are irregular; (V) behind the lettering in the upper label distinct scrollwork is seen; (c) the upper margin of the headdress of the sphinx is continuous; (d) the body of the sphinx is very rough; (e) the background around the star and crescent at each corner is composed of irregular lines arranged mainly vertically.

This die appears to have been an engraving on a single piece of metal, no part of which was used for Die II.

(Left) Die II. A composite die, comprised of four parts: the outer frame line of the design is also compound, being formed by portions at the edge of the three central sections of the die and, outside these, an enclosing metal frame locking the other portions in position. (Centre) The die for all values, including the 1 piastra, as envisaged by Fred J. Melville in 1915: no enclosing metal frame to bind together the three parts of the die. (Right) Die II described by H. G. Watson in 1916, when he recognised a separate die for the 1 piastra. Watson considered the outer frame line to be formed by the enclosing metal frame alone.



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DIE II (Plate V. 1) was used to produce all the other values, both in 1872 and in 1874-75. It was a composite die, specially built up for each value of the series. The four component parts were (a) the central portion, consisting of the oval containing the sphinx and pyramid, the spandrels and the labels carrying the inscription in Turkish above and in Italian below; (b) and (c) the side labels and corner tablets bearing the indications of value, in Turkish and in Italian respectively; (d) a rectangular metal frame into which the other components of the die were fitted (see illustrations above).

Each of the parts (a), (b) and (c) carried corresponding segments of the outer frame line of the design, which blended with the rectangular enclosing metal frame (d) to produce the complete outer coloured frame line as seen on the stamps. That this is so is demonstrated by stamps from many units which show the marginal frame line constantly split for considerable portions of its length in a way that suggests partial separation of the two elements of which the frame is composed, when the die was used to strike the mould. A similar the two elements of which the frame is composed, when the die was used to strike the mould.

A similar happening nearly certainly accounts for the characteristic split seen in the bottom frame line of the majority of the 20 para typographed stamps of 1872. This split, though present on some units of the lithographed 20 para, is often concealed by retouching of the lithographic printing stone. In some instances the retouching has been carried beyond the normal design, causing noticeable coloured projections. The split is sometimes partially concealed by the process of lithographic transfer. The frequency of split frame lines in the typographed stamps and their comparative rarity on the lithographs is no proof that the two kinds of stamps were produced from different states of the die.

LITHOGRAPHIC STONES

HAVING satisfied ourselves that the 20 para stamps had been produced both by lithography and by surface-printing, we sought evidence of how the lithographic printing surface had, been produced. Our first inclination was to suppose that transfers had been taken from the die to build up an original stone, from which a printing stone could be prepared. This theory, however, was disproved by finding lithographed stamps, which displayed the white flaws previously recognized as constant on certain typographed stamps. These flaws being peculiar to individual stamp units, and also characteristic, could not have been present on the die. As they are constant in appearance on any given unit they could not have been printing flaws. There remained, therefore, only the printing surface or stereo from which the lithographic transfer could have been taken. Such, in fact, must have been the procedure.

Whether a group of stereos was selected from which to take transfers, or whether a transfer was taken from the whole or some of the steroes as locked in the forme, we are as yet unable to say. That the lithographed sheet of stamps consisted of 200 units, as did the typographed sheet, is by no means impossible, as we know that stones of sufficient size existed in the printing works of Penasson at Alexandria; for the lithographed series of 1867, the Second Issue, had been printed by that firm in sheets of 200 and the individual stamps of both issues were approximately the same size.

That a single transfer from 200 stereos was taken, is not impossible but, so far, we have seen no evidence of creases on the lithographed 20 para stamps. So big a transfer as 200, from a notoriously difficult surface, would probably have resulted in creases by any but the most skilled lithographer.

If stereos were selected to form a group from which to take the transfer used to produce an original stone, the selection can only have been haphazard, as we have found many lithographed stamps showing conspicuous white flaws which we can duplicate on typographed stamps. Had selection been made with any care it is reasonable to suppose that these defective stereos would have been rejected.

So far we have not been able to recognize any recurrent lithographic flaws on stamps from different positions and so have no evidence of the use of an original (matrix) stone to build up the complete stone. Our inability to recognize recurring types resulting from the use of a matrix stone may be due to the roughness of the printing or to the small amount of lithographic material known to us. For the time being we must assume they do not exist.

I incline therefore to the supposition that the original transfers were taken, in sections, from the printing surface as it existed in the completed forme. These sectional transfers would be 'patched up' on a supporting paper, in the usual way, before being laid down on the printing stone. Our total number of 20 para lithographs is over two hundred and this number is being constantly added to. Of these we can pair fifteen stamps, recognizable by their flaws, with typographs in mint blocks we possess. The typographs exist as four units in the top row; as Nos. 12, 181 and 200 on the sheet; as the fourth stamp in a row not higher than six; as a stamp in the right-hand column; and as stamps in unlocated positions near the centre of the sheet. In addition, Ibrahim Chaftar reports to me that he can pair, or as he and I prefer to say 'marry', three further units in the bottom row of the typographed sheet, Nos. 191, 192 and 198.

Apart from these partially located lithographs, we can 'marry' a considerable number of pairs from unknown positions and I propose to include the 'Marriage Register' of 20 para stamps in my display. It would seem likely therefore that transfers were taken from the whole series of the stereos in the forme.

20 PARA LITHOGRAPHIC STONES A AND B

I would here like to draw special attention to one of the lithographed stamps bearing an intrinsic flaw seen also on a typographed stamp. Three copies of the typograph are shown in my display, to prove the flaw is constant in appearance. It consists of a white area in the headdress of the sphinx to the left of the head as viewed by the observer. On both copies of the lithographed stamp this white flaw is seen, but on one there is also a straight white line running in a transverse direction from the crescent in the S.W. corner of the stamp to the right-hand margin. This line is not due to a fold in the paper, as it does not extend across the whole breadth of the stamp. It has nearly certainly resulted from a flaw in the substance of the lithographic stone, as described by Brigadier Studd in his paper read before the Society on November 9, 1944, when he explained that the defect consisted of a vein of silicon which it is impossible to remove from the stone by any process at present known. Such silicon does not retain the lithographic ink, as does the rest of the limestone surface, and is therefore represented on the printed stamp as an uncoloured streak. If this contention is accepted, the last doubts as to the existence of the lithographs will have been removed. There is no trace of this white line on any of the typographed stamps from this unit. Fortunately a second copy of this lithograph exists at the British Museum in the Tapling collection and I am able to exhibit a photograph which shows well the white line caused by the silicon fault and also that it is constant in appearance. The bottom frame line of the design is seen in the photograph to be split in a manner corresponding with the same line on the typographs (Plate VI, 1). I believe this typograph to be No. 200 on the sheet. On the latter stamps this lower frame line is deeply impressed into the paper and blurred to a degree which indicated that the stereo from which the stamps were printed occupied a position in the bottom row in the forme, f In such a position the unprotected margin of the stereos would receive the full weight of the roller as it engaged the printing surface and the resulting deformity of the lower frame lines of the stamps in question we believe to be constant and characteristic, so proving the units which constituted the row of stamps along the margin of the sheet from which the printing roller started. In the case of the 20 para this was the bottom row of stamps. The bottom frame line of the two top rows of stamps, on the typograph sheet, is often deeply impressed, but rarely to the extent seen along the bottom row of the sheet. The complete top row of the typograph sheet has been recognized by means of the coloured rule, in the margin above the stamps, which is printed by the raised duplicated metal strip inserted in the forme to take the pressure of the roller as it left the printing surface. The ten individual units being recognizable, by means of constant intrinsic flaws, should not be confused with stamps from the bottom row of the sheet. In like manner the stamps of the second row have been recognized and located. It should be noted that the raised metal strip is divided vertically about the middle of its length, thus making a gap in the coloured rule approximately opposite the space between the fifth and sixth stamps of the top row-such breaks were provided to allow escape of air imprisoned between the printing surface and the paper, and are well exemplified by the typical 'Jubilee Line' of Great Britain.

The effect of this protecting strip of metal on the appearance of the contiguous stamp units is discussed later.

I also exhibit another lithograph produced from the same stereo, No. 200, as the stamps with the 'silicon white line'. It differs from them in that it shows no sign of the white line and also that it is a far clearer print in a deep blue, whereas the two lithographs with the white line are indistinct and of a light blue shade; moreover the bottom frame line of the deep blue lithograph is not split. There is only one conclusion to be drawn from these differences. There must have been two lithographic stones prepared by transfers from the same stereo units. That the two varieties of the lithograph represent the same unit on an original stone, transfers from which were repeated to build up a larger printing stone, is ruled out by the entirely different appearance of the prints. The light blue blurred lithographs are typical of prints taken from a hastily prepared stone on which the gum has not been allowed sufficient time to do its work of fixing the design before printing commenced, as pointed out to me by John Easton. The deep blue lithograph is from a stone prepared with greater care and with adequate time for the gum to fix the lines of the design. Moreover, on it, retouching of the split lower frame line has been carried out in a way that suggests deliberate rectification of faults, for which there was no time

when the first and probably emergency stone was prepared. I propose to designate these stones A and B respectively.

20 PARA LITHOGRAPHIC STONE X

A third group of 20 para lithographs can be recognized which provide food for thought and speculation. For this reason I propose, provisionally, to allude to them as stamps from Stone X. The stone from which they were printed was obviously prepared with some care, as there is evidence of considerable touching up of certain units. Two, which I illustrate (Plate VI, 2), are unlike any other copy of the 1872 20 para, both typographs and lithographs, known to me, in that, as the result of retouching, the p of POSTE is complete. The first of these specimens is duplicated in the collection of William C. Hinde: on both his stamp and mine additional touching-up of the outer frame line has resulted in a hook-like projection upwards from the N.E. corner of the stamp. The second lithograph illustrated is even more interesting because not only has the p been completed by filling up the space between it and the S.W. tablet containing the numerals 20, but also there is a vertical retouch immediately above this which restores to its normal dimensions the white line between the central segment of the design and the left-hand tablet bearing the indication of value. Furthermore, the outer frame line at the top of the design has been touched up in such fashion as to render it unlike any ordinary print from a metal stereo bounded by straight lines.

In spite of the care with which this stone was prepared the prints obtained from it were far from satisfactory; they are characterized by innumerable minute white defects which I believe can only have arisen during the process of printing and therefore are not seen duplicated on any two stamps. These white specks give the impression that the artist when preparing his design viewed the sphinx and pyramid during a snowstorm. They are confusing to a philatelic student and make it extremely difficult to match these Stone X lithographs with the corresponding typographs, but I believe I have achieved one such 'marriage'. The total number of these lithographs known to us does not exceed twenty, and for this reason also their study remains incomplete and their classification dubious. They are printed mainly in deep blue and are found perforated both $13\frac{1}{4}$ and $12\frac{1}{2} \times 13\frac{1}{4}$.

The possibility suggests itself that these lithographs are prints from Stone A after an attempt had been made to improve it when Stone B was brought into use. Against this theory is the clearness of portions of the design on some specimens I show. It is because of these uncertainties that I consider it advisable to describe these stamps as prints from Stone X instead of Stone C. Though not beautiful they are rare and interesting.

THE GILBERT RETOUCH

Another striking example of a lithographic retouch (in the Tapling collection), was pointed out to me by J. H. E. Gilbert and as the retouching seen on the stamp could have been done only by the lithographic process it is superlative evidence in support of my contentions. The stamp is a single copy of the 1872 20 para which shows a roughly stippled area replacing the upper portions of the letters EUIE E of KHEDEUIE EGIZIANE, the white line above them and the design to within the oval vignette. Another feature of this stamp which should be noted is a break in the thin coloured frame line beneath the final E of EGIZIANE, for this is a most unusual site for a break in this line and may therefore assist in the recognition of the typograph obtained from the same stereo.

A stamp of this merit needs a title by which it may easily be known, and I suggest nothing could be more appropriate than 'The Gilbert retouch.' A retouch of this nature would have been impossible on a stereo.

DIE II

To return to a consideration of the composite Die II. This is best studied on the 5 para stamps of 1872, which show above the side label on the right a white area where the inner surface of the enclosing coloured frame is at a higher level than the surface immediately to the left (Plate VII, 1). This peculiarity indicates that a portion of the frame line was carried on the segment of the die bearing the side label, and that this part was slightly too long to fit the central element of the die. It may have been found that the longer side label, bearing the word para in Italian, fitted more easily into the frame if sited at the opposite end of the die when the component parts were reassembled to produce the stereos

used in 1875, thus causing the chef d'oeuvre with side labels transposed. As already stated, the outer frame was not a single piece, but consisted of sections attached to the other three elements of the die, as suggested by Melville, but enclosed and bound together by a complete rectangular metal frame (see illustration, page 8), which Melville did not describe.

That the outer frame line varies considerably in breadth is very noticeable on many of the typographed stamps of 1872. Not only are some lines thick and others thin, but in many instances a line is seen to vary in breadth from one end to the other. Often the line on one side of a stamp is thin and on the other side thick. These variations are constant on stamps printed from the same unit and cannot therefore have resulted from varying degrees of inking, by what printers allude to as 'spue'. I believe these lines of varying breadth are the result of trimming the individual stereos, necessary to make them fit snugly when assembled in the forme, where they were held apart by loose metal spacers. A copy of the 5 para of 1872 is shown (Plate VII, 1) where one of these loose spacers has risen and so taken ink. Once the use of such spacers can be proved the need to trim the loose stereos is understandable. The work of trimming was certainly very carelessly performed.

Further evidence that difficulty was experienced when the three other portions of the die were fitted into the outer frame, is forthcoming from the stamps of all values prepared from Die II, with the exception of the 10 para (Plate V, 1). On these stamps the first letter of the inscription in the bottom label is seen always to be defective or missing, so that the first word often reads as OSTE instead of POSTE (Plates III and IV). This failure of the p to print properly is the result of the S.W. corner (as seen on the stamp) of the central portion of the die having been below the level of the lateral tablet, so that when the moulds were struck the image of the P would have been considerably raised. In turn the P would have been depressed upon the stereo and in consequence an outstandingly successful 'make-ready' (decoupage) would have been required to cause, it to print. Only in this way can the varying partial appearances and disappearances of the P to print from any one stereo would remain constant and this is found to be the case if stamps from the same unit are compared. Had the stereos varied in the amount of the p cast on them it would have been necessary for the moulds to have varied in this respect and the moulds could only have varied in this way had the die undergone changes while they were being struck -an almost unbelievable happening.

Other examples of defective decoupage are seen throughout the series, such blemishes as localized lightly printed areas of a constant character being found on the stamps of both 1872 and 1874-75. A particularly good example of this type of constant defect is seen on the right-hand top corner of the 5 piastre sheet printed in 1874. Light printing of portions of the sheet, due to imperfect inking, must not be mistaken for the result of faulty decoupage. Such a condition is not constant but varies from sheet to sheet. Examples of such defective inking are common and, in many instances, may account for the varying shades of the different stamps which have even attained catalogue rank-often without justification.

ENGRAVING THE DIES

We now come to the process of engraving the dies, both Die I and Die II. On well-printed stamps it can be seen that the headdress of the sphinx consists of coloured lines which cross at right-angles, that these lines are clear cut and that their intersections are sharply defined. Such lines can only have been engraved on metal in recess. To have cut away the metal cleanly between those intersecting lines, so that the printing surface stood up, would have been a physical impossibility for the men who cut this die. Such a feat was not attempted even by Joubert de la Ferte. It would seem therefore that the design within the oval was prepared by engraving in recess and then transferred to a second metal surface by pressure; the remainder of the design for Die I and the portions needed to complete the central part of the die for Die II being added by the simple process of cutting away the lettering and other areas which were to appear uncoloured on the stamps. A die suitable to produce moulds and in their turn stereos, appropriate to printing by typography, would thus have been achieved.

DAUGHTER DIES

Two Daughter Dies were undoubtedly prepared from the original Die I and stamps produced from them offer convincing proof that the stereos struck for the 1 piastra of 1872 were not employed for the

printings of 1874, because the characteristics by which the two daughter dies are recognized are not found repeated in 1874.

Daughter Die A presents the design in normal form, though stereos from it can be divided into two groups: (a) where the white frame line at the N.E. corner of the stamps is normal; and, (b) where a small spot of colour exists in the white frame at the N.E. angle. The few mint connected pieces of 1 piastra (1872) which we know show only stamps arising from Daughter Die A, group (b).

Daughter Die B (Plate VII, 2) is recognized by two marked characteristics; a spot of colour on the upper portion of the first A of PIASTRA; and a curved flaw involving the S.E. value tablet, extending from the right-hand frame line of the design to the lower frame in such a way as to suggest that the die was cracked-the corner becoming partially displaced as more moulds were struck. The numeral 1 is always misshapen, but the line of the fracture is depicted in different ways on different stamp units, being partly or wholly coloured on some and mainly white on others, though always showing the same contour.

There is a second state of Daughter Die B, which shows evidence of additional damage to the inner coloured frame line at the N.E. angle of the design, where the frame line has become bent down on to the coloured value tablet beneath it. In the first state of this die the upper frame line shows no evidence of deformity (Plate VII, 2).

Of the 1 piastra typographs (1872) which we have examined, approximately twenty-five per cent originate from Daughter Die B and most of these are from the second state. Of the 1 piastra lithographs (total 300 +) the numbers are nearly equally divided between Die A and Die B. It would seem likely therefore that there were two formes of stereos set up and that the lithographic transfers were taken from only one of them. The mint blocks and strips of typographs known to us contain no example of a stamp from Die B. This should mean that Dies A and B were used to prepare stereos for the first forme set up, from which lithographic transfers were taken because an emergency printing by the latter process was required; and that only Die A was used to produce the stereos required for the second forme, from which no lithographic transfers were taken. The lithographs show no sign of the numerous ink crusts which accumulated on the stereos as the typographic printing progressed. From which it may be inferred that the lithographic transfers, both for the 20 para and 1 piastra, were taken before the printing by typography began.

As is well known, the typographed stamps of all values were printed in sheets of 200, twenty horizontal rows of ten, with a plain, almost unbroken, coloured rule along one margin of the sheet. The distance of this coloured line from the stamps varies, for different values of the series, from 7 mm. to 10 mm. The metal rule, which printed the coloured line, was placed, in most of the formes, at the top and so the line runs along the upper margin of the sheet, but on the 5 para sheets the rule appears in the right-hand margin in most instances; 5 para stamps showing the rule at the top of the sheet exist but are rare. The different placing of these metal rules suggests that more than one forme for the 5 para was set, but the evidence is not conclusive.

The purpose of the metal rule was to take the pressure of the printing roller as it left the forme, in order that the marginally placed stereos should not become unduly worn. It had, in addition, a most important effect. The rule being continuous throughout its length, except for one small break, and raised to the level of the printing surface of the stereos adjoining, offered a barrier to the escape of air which was being driven forward between the stereos by the printing roller in its advance. This imprisoned air under pressure, in its effort to escape, tended to raise the paper. At the same time the roller sank slightly into the unduly wide gap between the stereos and the metal rule and in so doing dragged on the paper. This dual happening, the compression of air and the pulling on the paper, caused the outer margins of the top frame lines of the neighbouring stamps to be 'blown* or 'slurred' so that they are far from clear cut. This state of the outer frame lines is distinctive and enables stamps from the row adjoining the coloured rule to be recognized, even when no marginal paper remains attached to them. This statement, of course, applies to the typographed stamps only.

We have not yet found a stamp printed by lithography carrying marginal paper, either with or without the printed coloured rule, but have recognized five examples of 20 para lithographs prepared from different stereos of the top row of ten, adjoining the metal rule, and in no instance does the outer surface of the upper frame line show the least suggestion of being blown or slurred, whereas the typographs with which they are paired invariably do so: fairly substantial evidence that the same stereos were not rearranged in a second forme for printing by typography. Had this been done it should be possible to produce typographs showing identical intrinsic flaws, both with and without a blown upper margin, but this we have been unable to do.

We have found one pair of lithographed and one of typographed 20 para stamps, prepared from the same two stereos, and the relative position of the two units constituting each . pair is identical. This suggests that the lithographic transfers were taken from the stereos when locked in the forme, ready for printing by typography. Chaftar's mint block of four, 20 para, lithographs (the only such piece known to me) does not confirm this possibility, because, though the lower two stamps are transfers from the stereos for stamps 17 and 18 on the typograph sheet in the same relative positions, the upper two lithographs in the block are not transfers from the stereos for stamps 7 and 8. Single lithographs from both these top row stereos are in my collection and will be displayed.

We have seen no specimen of the 1 piastra stamp of 1872 bearing marginal paper- neither typograph nor lithograph-but have reason to think formes existed with the protecting strip of metal placed at the top and one at least with it at the side, because single stamps occur with blown margins at the top and others with a blown margin on one side.

During the 'run' the stereos of all values rapidly deteriorated. In many instances the outer frame lines became disrupted as the result of pressure (running flaws), the fragments of metal usually being displaced outwards (Plate IV, 3); also ink accumulated on the printing surface, so that areas which should have remained uncoloured on the printed stamps became coloured as the result of the hardened ink crusts filling the normal depressions and acting as part of the printing surface. Such running flaws and ink crusts are not seen reproduced on the lithographs from the corresponding stereos, neither are they represented on the stamps printed in 1874-75.

POSTAL ARCHIVES IN EGYPT

Since I arrived at these conclusions Ibrahim Chaftar has discovered documents forming part of the Postal Archives in Egypt (*L'Orient Philatelique*, July 1948) which confirm many of my contentions and extend our knowledge of this issue of stamps.

In a letter dated March 14, 1872, at Alexandria, Muzzi Bey, Director General of the Posts, instructs L. Guarnieri to check: '... (2) That the lithographic stones as well as the proof copies and the sheets you have rejected are handed over to you.' Thus supporting our contention that lithographs were printed.

A letter from Guarnieri to Muzzi, dated March 21, 1872, at Alexandria, states 'I beg also to notify that the stereos in lead of all the seven values as well as the proof sheets of the stamps have been-by mutual consent-destroyed by fire. Only the seven steel dies have been put into a wooden box-closed and sealed-which was handed over to the Official of the above mentioned Ministry (Finance).' Which proves that the stereos used for printing the stamps issued in 1872 were not in existence when the issue of 1874-75 was prepared.

The receipt given by Guarnieri for the stamps received from the Khedive's Paper Factory and Printing House, in Cairo, totals 6,790,000, whereas the original contract had been for 8,300,000 stamps. This receipt is dated March 19, 1872.

The initial letter of the series, dated June 3, 1871, at Alexandria, and signed G. Muzzi, is worth quoting in full.

'To His Excellency Cherif Pasha. Excellency,

As the current issue of postage stamps cannot last beyond the end of this year-and this fact has been ascertained by very careful calculations-I beg to draw your attention to the situation, so that you can give me your instructions for reprinting the stamps and about any alterations you may consider advisable. Although there is ample time, I thought it best to broach the matter now in view of the possible delays in so important a work and the serious consequences resulting from a postponement of even a week. In order to help Your Excellency when considering the matter, it is necessary for me to know: if the 1872 issue shall be absolutely similar to the present one, or if some modifications in the colours or in the printing will be required; if the denominations will be maintained or changed; if the work will be allotted to a local printer or sent abroad; and finally if the Ministry will undertake this work or if, as in the past, I shall have this entrusted to me.

As for the first question, I think it indispensable to change the colours, and in order to assure protection against forgery, I think it advisable to vary, if only slightly, the lithographic design by altering the details, while leaving it in the main unchanged.

On the second point, I propose to add, to the present series, a new P.T. 2.20 para postage stamp, required at all Post Offices since the Austro-Egyptian Agreement came into force.

On the last two points only the Minister is competent to make a decision and I am not entitled to give a personal opinion: should this brief statement not be sufficient, I remain entirely at your service for any further explanations you may desire; but I beg to draw attention to the reasons for avoidance of delay given at the beginning of this letter and I hope to be honoured by an early reply.'

From these documents, and others published by Chaftar in *L'Orient Philatelique*, it would appear that the original intention was to print the entire issue of 1872 at the Government Printing Works in Cairo (at the suburb of Boulac), with the aid of V. Penasson, the lithographic expert of Alexandria. To this co-operation with Penasson the Director at Boulac objected. I suggest that owing to unforeseen difficulties in the production of the typographs, assistance by Penasson became imperative and his help took the form of lithographic transfers taken from the existing stereotype surfaces at Cairo, prepared for the 20 para and the 1 piastra values, but not yet used for printing; removal by him of these transfers to Alexandria, where lithographic stones were laid down and used for printing on paper similar to that used for the rest of the issue, which Penasson would also have taken with him from Cairo. Such action would account for the letter from Muzzi ordering destruction of lithographic stones and also explain the discrepancy in the number of stamps for which Guarnieri gave a receipt at Boulac and the number agreed to be supplied by the Government Printing Works at that suburb of Cairo.*

OVERPRINTED STAMPS OF 1879, JANUARY 1st

A Postal Convention signed by Egypt and Austria allowed mail between the two countries to be franked to destination by the stamps of either country from which the mail originated. This agreement became operative from July 23, 1868, and fixed the tariff for a single letter at $2\frac{1}{2}$ piastre, as far as Egypt was concerned. Muzzi in his letter to Cherif Pasha, just quoted, points out the need for an adhesive of this value, as none existed at the time the Convention was signed. A similar Convention between Egypt and Italy came into force on January 1, 1873, and again the rate was fixed at $2\frac{1}{2}$ piastre. The necessary stamp duly appeared with the rest of the series on January 1, 1872, and as part of the printing of 1874 was used as early as October in that year.

The Universal Postal Union began to function on July 1, 1875, and from that date the $2\frac{1}{2}$ piastre stamp became superfluous, as the single letter rate between member States was fixed at $1\frac{1}{2}$ piastra, or the equivalent. All three countries with which we are here concerned were original members of the U.P.U. By 1878, when the new issue of stamps to be printed by Messrs De La Rue was under consideration, it became obvious that the existing supplies of $2\frac{1}{2}$ piastre stamps would not be required. Though there was no shortage of stamps of the face value of 5 and 10 para these were the two values, the lowest of the series, selected for the overprints on the unwanted $2\frac{1}{2}$ piastre stamps. These overprints give us the first evidence of the change of influence in the Postal Administration, a change from Italian to French, when the Dual Control by Britain and France was established in Egypt, as the result of wild spending by the Khedive Ismail Pasha. For the first time we see 'S' tacked on to the word PARA, to indicate a plural to the French mind.

* Both the line engraved and the lithographed essays for this issue bear the initials V.P. on the base of the obelisk. Also Penasson was called on to provided the new stamps in 1875, when the UPU was formed and these (unissued) he printed by lithography

Of the accepted design for the overprint, proof printings by lithography, in black, were made on single stamps. These can be recognized by the existence of guide lines at all four comers of the design. The examples, of both values, of which I have knowledge were applied inverted.

The lithographic stone for both overprints was laid down by means of four transfers of fifty units-5 x 10-with guide lines at the four corners. In the case of the 5 paras these guide lines were completely removed from the stone before overprinting of the sheets of 200 stamps began. This was not done in respect of the 10 paras and stamps, as issued, with guide lines at one corner are not rare.

Inverted overprints are not only on stamps No. 154 on the sheet-the inverted stereo- but originated also from the whole sheets bearing an inverted surcharge, two of which must have existed, as proved by corner pairs of both values in the Ceysens collection.

A total of 340,000 stamps were overprinted-apparently 170,000 of each value. These stamps were on sale at Cairo and Alexandria only: stamps with both perforations were overprinted. In addition to tetebeche pairs, single stamps with compound perf. and overprint inverted, genuinely postally used, are of great rarity, particularly the 5 paras value. Overprinting was done without much care and many specimens bearing misplaced overprints and showing other varieties have been fraudulently postmarked and are on the market.

This philatelic adventure and the production of the 5 para stamp in 1875, with every unit on the sheet an 'error,' made a fitting finale for stamp printing at Boulac in Egypt and justified the introduction of work by De La Rue. How different has been the work done in Egypt since the Survey Department took the matter in hand and printed the first Commemorative stamp in 1925.

Having given an account, in narrative form, of this research, which has extended intermittently over the past eleven years, while I have lived in England, in Ethiopia and in Guernsey, it seems advisable to sum up my findings and conclusions in a more usual or systematic fashion. Before doing so I wish to acknowledge formally and with gratitude the help I have received from many friends.

At first I worked with J.C.Besly who devoted many hours to sorting stamps and recording diagrammatically our observations. Since Besly was taken from us, I have received continuous and most unselfish help from John H. E. Gilbert, who has brought to light much informative material. Ibrahim Chaftar I first met at the New York Exhibition, in 1947, where I was able to instruct him in the recognition of the lithographs and typographs, since when he has remained a most enthusiastic research student. He has accumulated a large mass of material in Egypt, which he has studied with skill, and generously put at my disposal all the knowledge he has acquired. He also has been entirely responsible for finding and recording the buried treasure in the Postal Archives in Egypt, the documents so revealed having produced proof of some of my conclusions, which otherwise would have had to remain based on deductions resulting from observation of stamps to which I had access. No one could wish for a stauncher or more sincere and generous philatelic friend.

My gratitude is also due to all those members of the Egypt Study Circle who have unhesitatingly loaned me the whole of their collections of this Third Issue of Egypt: I would specially like to thank William C. Hinde, many of whose stamps will be displayed when I read this paper to the Royal Philatelic Society, London, on April 12, 1956; without his help this research would have been impossible. Stamps from the collections of Mackenzie-Low, Richard Stead, John Gilbert, Charles Fox, Seymour Blomfield, C. D. Rawson, and Ernest Kehr, will also be included in my display. Ahmed Mazloum, Jean Boulad, Gabriel Boulad and Madame Wissa have all sent me photographs of stamps they possess or are known to them. I thank them all.

SUMMARY. THE PRINTINGS OF 1872 AND 1874-75

1. Two dies were prepared. Die I was used for the 1 piastra value only. It consisted of a single piece of metal. Die II was composed of three portions enclosed in a frame. The central portion was used for all values, other than the 1 piastra. The lateral portions were specific for each value of the series. Each of these three portions carried the appropriate section of the outer frame line of the design: the printed outer frame line was completed by the enclosing metal frame. The design on the two dies differs considerably-on Die I the lines on the pyramid are irregular, there is scroll work behind the lettering in

the top label, the body of the Sphinx is represented as a heaped-up mass of stones; on Die II none of these characteristics is present.

2. For the 1872 printing, moulds were struck in plaster of Paris: this medium was particularly badly mixed when the moulds for the 20 para were prepared and, in consequence, bubbles of air and hard lumps resulted which caused characteristic and constant white flaws to appear on the stamps. Similar white flaws, though less numerous, are seen on all other values. These I have named INTRINSIC FLAWS, in that they arise during the process of manufacture of the stereos. Such flaws do not appear on the stamps of the 1874-75 printing, which proves that fresh stereos were prepared, probably from moulds struck in papier mache, for these stamps. Correspondence found by Ibrahim Chaftar, in the archives of the Post Office in Egypt, has provided evidence that all the first printing surfaces were destroyed in March 1872.

3. The stereos for the 1872 stamps were made of comparatively soft metal and many were damaged in such a way that defects were caused in the design of the printed stamps. These I have named EXTRINSIC FLAWS. They can be divided into two groups: (a) the result of damage by tools while the loose stereos were being arranged in the forme, mainly breaks in the frame lines where metal has been driven inwards or nicked (MAKE-READY FLAWS); and (b) the result of damage by pressure with the printing roller, mainly breaks in the frame lines, the fragments of metal being forced outwards (RUNNING FLAWS).

4. All stereos of 1872 were shaved, to prepare them for assembly in the printing forme: this trimming was unskilfully performed, so that the outer frame line of the stamps varies considerably in breadth, but is constant for any given unit. Some frame lines are broad at one end and narrow at the other.

5. The stereos, when clamped in the forme, were separated by loose metal strips. These 'spacers' occasionally became displaced and when they rose took ink, which caused lines in colour to print between the stamps.

6. To protect the printing surface from damage by pressure at the edge of the forme, where the roller finished, a metal rule (usually duplicated) was inserted a short distance beyond the stereos. This took ink and printed in colour as a broad line on the top margin of the sheet; though usually sheets of the 5 para show it on the right-hand margin, one forme carried the rule at the top of the forme. This raised metal rule having but one break in continuity, near the middle of the top row of stereos, the air between it and the adjacent stereos, when enclosed by the paper and compressed by the roller, escaped only with difficulty. In consequence, the paper was raised from the printing surface as the roller passed over the upper margins of the top or final row of stereos and the stamps from these stereos show a blurred or 'blown' outer edge of the top or side frame line, respectively, of the design. This appearance is characteristic of the final row of stamps on sheets of 1872 printed by typography.

The stereos for the 1874-75 printing were surrounded on all four sides of the forme by an interrupted decorative pattern, made up from loose segments. No compression of air took place and 'blown' margins are not seen on the stamps.

7. TWO VALUES OF THE 1872 ISSUE, 20 PARA AND 1 PIASTRA, HAVE BEEN RECOGNIZED PRINTED BY LITHOGRAPHY AS WELL AS BY TYPOGRAPHY. Other values, as stated in the philatelic press of 1872, may have been printed by lithography, but this cannot now be demonstrated.

8. THE LITHOGRAPHIC STONES WERE LAID DOWN BY MEANS OF TRANSFERS TAKEN FROM THE ACTUAL STEREOS USED FOR THE PRINTING BY TYPOGRAPHY.

This is proved by the occurrence of identical flaws on stamps from individual units, printed by the two processes. In every instance, points of difference can be detected in such paired examples. This difference is very striking in the case of stamps from the top row of the 20 para sheet. On those printed by typography, the upper surface of the outer frame line is 'blown'; on the lithographs it is clear cut.

Of the 20 para stamps printed by typography the majority show a diagonal split in the bottom outer frame line: this split has frequently been obliterated on the lithographs, as the result of retouching on

the printing stone, and the frame line then appears intact. Retouching in some instances has given rise to projections at the ends of the frame lines, or the shape of the line has been altered. In some cases the split has been partially concealed by the act of the lithographic transfer.

In many of the lithographic prints, fine specks of colour appear on or outside the area of the design. The lithographs are essentially flat in appearance. In contrast, the typographs all show heaping of ink ('squash') at the margins of some of the lines of the design; on many stamps the design in colour has bitten deep into the surface of the paper. The growing ink crusts seen in the typographs are not represented on the lithographs, nor are the signs of damage to the stereos caused by the act of printing (extrinsic running flaws). Therefore the lithographic transfers were probably taken before printing by typography began, but after the stereos had been arranged in the forme, as damage caused by tools used to adjust the position of the loose stereos (extrinsic make-ready flaws) is exactly reproduced on the lithographs. Lithographic transfers have been recognized from so many stereos, widely distributed in the forme, that it seems likely the lithographic stones were laid down by transfers taken from the entire forme prepared for typography.

It has not been possible to prove the existence of Lithographic Types, as denned by Doming Beckton, derived from an original stone.

9. The 20 para lithographs can be recognized printed from three different stones, probably in sheets of the same form and dimensions as the typographs (200 stamps: in 20 horizontal rows of 10):-

Stone A. Very little touched up: bottom frame line usually split, as on the typographs. Used for printing before gumming of the stone had properly fixed the design: prints blurred: mainly in shades of pale blue.

Stone B. Considerably touched up, particularly the outer frame lines which often are completely redrawn: bottom frame line seldom shows diagonal split seen on nearly all typographs. Prints clear, except when over inked: mainly in deeper shades of blue.

Stone X (so called because it may be a second state of Stone A after considerable attempts to improve it). Much retouching of frame lines and elsewhere. On some units attempts have been made to reconstruct the letter p of POSTE. Prints are very rough and some show so many minute white (? printing) flaws that they might be described as 'the sphinx and pyramid during a snowstorm'. Prints from Stone X are rarer than prints from Stones A and B: in only one instance has a lithograph from Stone X been paired with a typograph- probably the result of confusion caused by the 'snow'.

10. The 1 piastra stamps, of 1872 only, were printed from stereos derived from two different Daughter Dies. This is proved by the existence of stamps showing characteristic damage on the S.E. corner of the design. A curved break involves the right-hand bottom numeral 1 and portions of the neighbouring frame to the right and below. When well developed, the damage prints as a coloured flaw. Stereos from this damaged Daughter Die also show a minute spot in colour on the first A of the word PIASTRA-many in addition show deformity of the inner frame line at the N.E. corner of the stamp. That this damage is not to a single stereo only is proved by the existence of multiple pieces of the 1 piastra typograph bearing more than one example of the damaged 1. Also, stamps bearing this flaw are far too numerous all to have come from a single stereo.

Stamps from Daughter Die A show the undamaged design: those with the damaged 1 are from Daughter Die B.

11. The damaged 1 variety is found on stamps printed by lithography as well as by typography, but never on the stamps of the 1874-75 printing. This is evidence that the same stereos were not used for the two printings-a fact now amply confirmed from documents found by Ibrahim Chaftar in the Post Office Archives in Egypt (published in *L'Orient Philatelique*).

12. The proportion of stamps showing the damaged 1 differs considerably between typographs and lithographs; being far higher on the latter. From this it may be deduced that at least two formes were prepared for the printing of the typographs and that the lithographic transfers were taken from one forme only. A pair of lithographs exists with both stamps showing the damaged 1.

13. The lithographs of 1872 were probably an emergency printing by V. Penasson of Alexandria. This firm possessed lithographic stone of the necessary size which they had used for printing the second issue of Egypt (1867 and 1869). The lithographed stamps of 20 para were nearly certainly taken into use before the typographs, as none of the latter is found dated earlier that February 1872 and few before May of that year, whereas the majority of dated lithographs were used during the first three months of 1872. Lithographs and typographs of 1 piastra were used concurrently from the first day of issue-January 1, 1872.

EARLIEST DATES

1872:	20 para	Lithograph	January 7, 1872	: Byam
	20 para	Typograph	February 8, 1872	: Chaftar
	1 piastra	Lithograph	January 3, 1872	: Byam
	1 piastra	Typograph	January 1, 1872	: Chaftar

14. Tete-beche pairs. Previously these were thought to exist solely on the sheets printed in 1874-75. Owing to the more certain recognition of the two printings, now established, it can be stated with confidence that the 5 piastre tete-beche pair is from the stamps of 1872. No 5 piastre tete-beche pair is seen on the sheets of 1874-75 so far recorded.

15. Stereos inverted in the formes used for the printings of 1874-75 are as follows:-

10 para-	-	Stamps Nos. 31, 32, 33, 56, 57, 58, 59, 60 and 145-all in one forme,
		known as setting B. Setting A had no inverted stereo.
20 para-	-	No inverted stereos.
1 piastra-Setting A.	-	One inverted stereo: No. 4 in row $12 = \text{stamp } 114$.
Setting B.	-	Twelve inverted stereos: Nos. 1 to 10, 114 and 141.
Setting C.	-	Three inverted stereos: Nos. 38, 58, and 152.
Setting D.	-	Nine inverted stereos: Nos. 1 to 9 in the top row: the remainder of the
		forme is unknown.
2 piastre-	-	One setting only. One inverted stereo: No. 8.
2 ¹ / ₂ piastre-	-	One setting only. One inverted stereo: No. 154.
5 piastre-	-	No inverted stereo.

16. 5 para of 1875: side labels transposed and inverted. Because of this curious arrange ment of the design it is impossible to say what is an inverted stereo but tete-beche varieties occur in printings from both formes so far recognized. Forme A has 88 vertical and four horizonal tSte-beche pairs. Forme B, which I have not seen, has only two horizontal tete-beche pairs, but the same number of vertical pairs as in Forme A. All blocks, with marginal paper, which I examined fit into Forme A.

17. The 2½ piastre surcharged 5 paras and 10 paras was overprinted by lithography: the printing surface of 200 units was laid down from four transfers of 50 units each. The guide lines were removed from the stone of the 5 paras, before the overprint was applied, but were left untouched on the stone of the 10 paras and so appear between the 5th and 6th stamps, the 91st and 101st, the 100th and 110th, the 195th and 196th; at the four corners of the sheet; and, in the centre of the sheet, in the form of a cross, between the 95th and 96th, the 105th and 106th, the 95th and 105th, the 96th and 106th stamps. Single specimens with guide lines at all four corners of the stamp were probably proofs or essays, they were usually printed inverted. Other essays for both values were printed in red. Inverted overprints for both values occur, applied not only to stamps from the inverted stereo (No. 154) but also to whole sheets. These overprinted stamps were on sale at Alexandria and Cairo only.

18. Bisected stamps. 1872. The 1 piastra typograph was unofficially bisected for use at Salonica and Scio.

1874-75. The 20 para, 1 piastra and 2 piastre are known unofficially bisected: the last two were used at Smyrna and Gedda.

ERRATA

THE following corrections should be made in the first instalment of this paper published in the January number (No. 758).

Page 5. Plate II 1. For 'piastra' read 'piastre'.

Page 5. Plate VII 2. For 'Die IA 1 group (b)' read 'Die IA, group (b)'.

Page 5. Plate VIII 4. For 'piastra' read 'piastre'.



PLATE I 2



PLATE II 1



PLATE II 1



PLATE III 1 & 2



PLATE IV 1



PLATE IV 2



PLATE IV 3



PLATE V 1



PLATE V 2



PLATE VI 1





PLATE VI 2

PLATE VII. 1



PLATE VII. 2



PLATE VII 3

PLATE VIII



1872 20 para. Lithographs. Top stamp. Stone A, with split bottom frame line and generally blurted appearance, the result of printing from the stone before the design was properly fixed by gumming. Lower stamp. Stone B, with bottom frame line intact, the result of touching up the printing stone. The whole stamp has a clearer appearance compared with stamps from stones A or X. (Right) 1879. Essays for the surcharge were lithographed thus, in red, for both overprints.

PLATE VIII



1872. 20 para. Lithograph. In the Tapling collection, showing large stippled area involving EUIE E in the lower label, the white line above it and a portion of the desert sand. The Gilbert retouch.

PLATE IX



1872, 20 para. Lithographs. Stone X.(1) The Sphinx and pyramid seen during snow storm;(2) with frame line, particularly, on the right side, touched up.



1879. paras $2\frac{1}{2}$ piastre of 1874 (Ceysens collection), A similar corner pair of the 10 paras exists in the same collection. At least one whole sheet o each value must have been overprinted inverted. There is no guide line at the corner of the sheet here illustrated. It is clearly seen on the pair from the 10 paras sheet.

PLATE IX



1872. 20 para. T ypograp . (J.H.E. Gilbert collection), Stamps 8 to 10 and 18 to 20.