# A St. Louis Symposium 

 $133^{\circ}$.JOHN K. TIFFANY

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## A St. Louis Symposium.

During the present month there has taken place in this city a notable gathering of no less that twenty six selected representatives of the set known to philatelists as St. Louisians, few of which have ever returned to this place of their origin since they left it, when less than two years old, between the years 1845 and 1847 . In the apartment where they were mustered were also copies of everything that is known to have been printed about their history, and photographs of various obler representatives of the set, some over wenty years old, and others more recent, much emlarged to facilitate examination. Not a few of those present were old ac. quaintances, at once fecognized as members of familiar collections, others I had merely seen once or twice, and still others I had never known. They were gathered from quite different localities and all parts of the country. Altogether, an assemblage, more important $b y$ reason of the character of its components, than has probably occurred since the larger number, discovered many years ago in their hiding place in New York, was dispersed.

They were brought together in response to the request of the pub-


## DIEA, OR VARIETY 1

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Norrs os Amove Lobrstitarton-This il-la-irationis from a heamilful, cleatr umased
 ila down frola llo left lower entul of lie "s"







 ticularly evident ita all the photngrapha.
lishers of this journal and by the kindness of several well known philatelists ta whom I desire to return my very heartiest thanks for the pleasure 1 have experienced in being able thus to examine, compare and familiarize myself at leisure, with these interesting rarities. They were brought together more especially that the exact status of an odd specimen which had appeared here, laving all the known characteristics of the set, but possessing also some marked individual peculiarities, might be determined. Incidentally, as there was in the number one of the famed twenties. which I had never before had an opportu. nity of carefully scrutinizing, though I have seen it several times, and Grant's old photograph of both varieties of that value, I have been able to satisfy myself of their character also. I contented myself, however, with photographs of the original Die 13 of the five cents, a stamp I have not seen for some years, hut have fre. quently examined before. With these two exceptions, I believe, specimens of all the varieties ever described. and of one never before written about to my knowledge, were in my possession at the same time and carefully compared.

Ny own opinions and information


REPRODUCED AND REARAANGED FROM AN OLD PHOTOGRAPH PUBLISHEDBYGRANT A CO., 1874.








about these stamps, of which I have examined many separateiy heretofore, as well as my disinclination to indulge in theoretical reasoning, so often substituted when facts cannot be ascertained, have so often appeared in print, that it is hardly necessary to say that I undertook the investigation with some pretty deeply rooted ideas about the authenticity of some of these varieties, have reached my present conclusions and hazard some theory now, only after the most thorough and extended examination, and the trial of every test that my long experience, both as a stamp collector and a student of all manner of other counterfeits and forgeries, could suggest as applicable under the circumstances. I have not been able, it is true, to dissect the paper, and by properly preparing specimens for thorough microscopic examination, to determine its exact ingredients, nor to apply any chemical tests which might enable me to determine exactly what gave the paper its original or its present color. I have been, in a measure restricted in the examination otherwise, because of the care with which such valuable objects must be treated, but I have ascertained quite sufficient to warrant, I think, the theoretical part of what I have to report and some facts that may be new and interesting. Necessarily, I shall have to be somewhat lengthy.

In such an investigation it is of the first importance that every specimen should be examined under exactly the same conditions. Stamps upon the original envelopes or with paper adhering to their backs often appear to differ from specimens without such surroundings. Specimens viewed in different lights, as well as the same specimen when viewed in different lights, reveal different characteristics, and so of every other test. In what I am about to say, therefore, let it be understood, without the necessity of repetition, that each specimen has been examined exactly the same way, and all comparisons have been made under precisely the same conditions of light, microscopic power, etc., etc.

The theory I am about to discuss is
not new. Its substance was stated by Mr. Pemberton in an article in the Stamp Collector's Magazine, as long ago as January, 1871 . It was reached by him after the examination of about the same number of specimens as that lately in my possession, he lacking one variety to complete the chain, the later state of the die C of the five cents, and I one variety of the twenty cents. The advantage is largely with me, 1 confess, because I have his description and photographs of the missing variety, and am besides familiar with every line and detail of the known types, having examined from time to time, some 50 or 60 specimens to determine as to their character, but I have never before attempted that microscopic examination of the paper of the stamps, which I have frequently carried much further in the case of other stamps and suspected notes, bonds and documents.

Let us begin by recalling that Mr. Kershaw, the engraver, when first intervjewed by Mr. Durbin as to his recollections about these stamps, is reported to have stated (Stamp Collector's Magazine, Sept. 1868), that he had made tzer plates, each consisting of six stamps, one of fives and one of tens; that at a later interview with the writer, having thought over the matter, he stated (History of the Postage Stamps of the United States) that he made but one plate consisting of three of each value, but had made three printings of it at different times, using different papers because he could not procure exactly the same, and had retouched the plate somewhat at each printing because the plate zeras suft and shenied signs of wear, and was very positive that he had printed in all about 500 sheets, and was very indignant at the suggestion that he had altered the plate or conld have engraved such numerals as those of the 20 . The fact that all the photographs show these numerals verv much darker than the remainder of the impression, that they are much ruder than the 5 or 10 , and that no mention of a twenty cents can be found in the notices of these stamps in the papers of the day, have also been held to he pretty good evidence against the authenticity of that


DIEA,
OA YARIETY 1.


DIE B
OR VARIETY 2 .


DIEC.
OA VARIETY 3

AEOVE ILLUSTAATIONS ARE FROM ORIGINALS LOANEDFAOM THE COLLECTION OF H.E. DEATS AND ANOTHER FRIEND.





value and cannot be lightly set aside. But on the other hand, as we find that only three varieties of die of the ten cents have ever been found; that it is beyond question that Mr. Kershaw was not capable of engraving the same variety twice exactly alike; that while there are five varieties of die of the five cents, two of these and the two dies of the twenties are so absolutely identical with two of the other die varieties of the five, even to minute details of the engraving and accidental marks not made by the engraver, as to bequite beyond the powers, not only of Mr. Kershaw, but any one else to reproduce; we are forced to the conclusion that he either made one plate containing all six original die varieties or two plates each containing the three of each value. We have fives adhering still by the top and bottom, showing, probably, that the three varieties of each value were in one vertical line or row, and if so we may be pretty sure that there was only one plate, particularly as six stamps in two such rows could easily be engraved on an ordinary card plate, for as the size of the five cents is $171 / 2 \times 221 / 2 \mathrm{~mm}$. and of the ten cents $181 / 2 \times 221 / 2 \mathrm{~mm}$., allowing 3 mm . for each of the intervening spaces, $171 / 2.3181 / 2=49 \mathrm{~mm}$., $221 / 2+3.221 / 2+3221 / 2=731 / 2 \mathrm{~mm}$., which with a margin of 10 mm . all round would be about the ordinary size card plate.

Next we find, independent of any of the supposed changes in the plate, that there were undoubtedly three printings as stated by Mr Kershaw, on three kinds of paper, which again is favorable to the idea of one plate. We can also be pretty sure that a copper plate would have to be unusally soft to deteriorate much even after 000 impressions and I do not find any impressions that show any such wear, though I have seen quite a number, on letters and off, that were used in 1847 and of the last printing. I have noted some rather faint impressions and some very minute differences in certain lines and spots, some of which are possibly due to retonches, but generally, I conclude them to be incidents of printing merely. It will appear, I think, from mex examation that it is
quite probable that Mr. Kershaw's memory was as faulty in regard to the retouching, as in regard to the number of plates and their softness, and that the retouching went further than he remembered.

Any nomenclature of the die varieties is only tentative until we know the order of them on the plate. Mr. Pemberton's varies from that of the American catalogues and writers, and this different designation has led to some confusion, more particularly as almost every writer has pointed out different tests for distinguishing the varieties. While there are now known five die varieties of the five cents all belonging, however, to one type, and two die varieties of the twenty of the same type and three die varieties of the ten of a sec ond type, every variety varies in nearly every line and point from the same line or point in every other variety. It is difficult to remember any complicated comparison, and therefore, better to select, if possible, some marked simple test.

As all English and American writers have almost always designated the three varieties of the ten cents in the same order, and the readiest test to distinguish them from each other is found in the strokes under Post Office, it will be sufficient to recall that:

Die 1, Die A. or Variety 1 of the ten cents has three single curved strokes in a line under Post Office.

Die 2, Die B. or Variety 2 of the ten cents has three pairs or six curved strokes in two lines under Post Office.

Die 8, Die C. or Variety 3 of the ten cents, has three triplets or nine curved strokes in three lines under Post Office, the middle stroke of each triplet, however, is broken into dots.

I find the readiest test to distinguish the three original varieties of the five cents, and the easiest to remember, in the rumps of the bears:

In Die A, Variety 1, or Mr. Pemberton's Die :3, there is a fairly wide space between the frame line on each side and this portion of the anatomy of the bear on that side, and these spaces are nearly equal.

In Die B. Variety 2 , or Mr. Pemberton's Die 1, the bear on the spectator's


## REPRODUCED FROM AN OLD PHOTOGRAPH MADE EY J. W. SCOTT.











right hand side has this portion of its body very much nearer the frame line on that side than the bear on the spectator's left hand has.
In Die C, Variety 3, or Mr. Pember ton's Die 2, on the contrary, both bears have this portion of their trunks very near the frame line, and the bear on the spectator's left almost touches the frame line.
I am informed that four specimens are now known of the twenty cent value. There are only two varieties, and as both correspond in all particulars, except the numerals and a few of the adjacent strokes, point for point with Die B or Variety 2 (Mr. P's Die 1) and Die C, or Variety 3, (Mr. P's Die 2,) with the original dies of the five cents, the same tests will serve to distinguish these varieties of the twenty cents from each other and although there is no Die A, or Variety 1 of this value, it will be more convenient to call them Die B and C, or Variety 2 and 3 of the twenty cents.
Similarly what I shall call Re-engraved Die B and C, or Re-engraved Varieties 2 and 3 of the five cents, correspond, point for point, with the original Dies $B$ and $C$ or Varieties 2 and 3 of this value, except in the numerals and a few ad jacent points, and though it is anticipating a little, it will be best to notice here that the Re-engraved Die B or Variety 2 re-engraved, has long been known and is that described by Mr. Pemberton as the third state of his Die 1 and as Variety 4 in the History of the P. S. of the U. S., and is distinguished from the original Die B or Variety 2, by the form of the numeral and these adjacent points.

The Re engraved Die C or Variety 3, has apparently been undescribed hitherto, and is the third state of Die C, which Mr. Pemberton had no doubt existed, and is likewise distinguished from the original Die C or Variety 3, by the form of the numeral and these adjacent points.

It was Mr. Pemberton's theory that the plate as originally engraved, consisted of the three original dies of the five and ten cents only, and that the first printing was made with the plate in that condition. That later two of the
dies of the five cents were altered on the plate by substituting the numerals 20 for the numeral 5 , and the plate thus consisting of our Die A of the five cents, Dies $B$ and $C$ of the twenty cents and Dies A, B and C of the ten cents, was again printed from. That still later the numeral 5 was replaced on the Dies $B$ and $C$ and the 20 erased, and that the plate was a third time printed fromis in this condltion.

This may at first seem a very complicated theory, and an unnecessary and peculiar method of accounting for, or of producing the known varieties. Letus, however, consider the possibilities and probabilities of it. The postal rates prescribed by the law which gave rise to this issue were five cents for a single letter within a radius of three hundred miles, ten cents for a double letter within such radius and for a single letter beyond it, and twenty cents for a double letter beyond it. Naturally the two values would first be made, particularly as both the business and domestic correspondence of St. Louis at that day was largely with residents of the Eastern cities, notably with New York and Philadelphia. There was no large city within a radius of three hundred miles, nor any point from which St. Louis drew supplies. An examination of any file containing St . Louis letters will show the letters of that period to have been taxed at ten cents and occa. sionally at twenty and thirty cents. The larger part of the letters found bearing these stamps have either one ten or two five cent stamps, and every one I have ever heard of was written by persons whom I know the history of, many of them personal acquaintances of my family. The stamps are known, therefore, to have been used chiefly by a few persons and those having Eastern and Southern connections. These facts seem to warrant the supposition that of the small lot first printed the ten would be first exhausted and the five little used, while a twenty was a possible demand. A serond printing required to supply sufficient tens and containing twice as many twenties as fives would be the result. and by the time it was exhausted, perhaps a more general use
of the stamps calling for five cents for letters to customers within the 300 mile radius, the little use of the twenties, and continued greater use of the tens, would call for the five and ten cent values again. These seem to be at least the plausibilities and probabilities of the case.

It is hardly necessary to say that it was by no means unusual to make such alterations in plates, as an examination of any stock of old plates shows that it was done and the process evident. Mr. Kershaw himself had attempted to recover all the plates he had made and he had furnished many to the various banks of the day. The design being satisfactory the name was altered even in bank note plates, and frequently in card plates where only an initial was changed, by laying the plate upon a smooth, steel surface, gently pounding it on the back to beat up the metal, repolishing the spot and re-engraving the new name, intial or devise. The theory, therefore, involves no impossibilities of process and seems to have at least some probabilities in its favor. We are now ready to see what the specimens we have before us reveal.

Mr. Kershaw testifies to three printings on three different papers. Mr. Pemberton says they were an opaque paper of a delicate greenish gray; a thinner dull grey blue, a thinner dull grey paper more or less transparent. These are practically the shades and qualities repeated by every writer. But having selected a perfectly cloudless day and a uniform difused light, and spread out all the specimens in my possession, I found that these terms would hardly describe the numerous apparent shades of their papers. Looking at them again so arranged that the light fell diagonally upon the paper, I found the colors varied very' much from those of the first examination and a repetition of the experiment by direct, reflected and transmitted, sun, gas and eletric light, showed me that I at least could not hope for any very positive classification by the mere color of the paper. Having in my possession a large number of letters written to and from St. Louis in these years, I was able after
completing, however, all my examinations of the paper to identify two of the three papers of the stamps with the paper of the letters, both in color and by microscopic examination, and in fact to match so many of the specimens in color and quality, that I am of the opinion that it is safe to say that the stamps were all printed on the better class of writing paper in use at the period. That the original shade of at least the paper of the first two printings was originally a delicate bluish grey, the first rather clearer and less muddy than the second, and slowly turned in most instances by atmospheric influences or the chemical action of the different adhesive matter employed, or both, to quite a variety of shades of greenish grey, yellowish grey and even bleaching to a yellowish white, while the second turned to greyish blue, greenish blue and gray, and when viewed in the diagonal cross light with a faint rosy tendency, often quite marked on the back. The paper of the third printing I think was the same general shade originally, a pair on the original envelope showing quite blue in the disfused light, but with a more rosy tint in the cross light, while others are of a grey tint and still others of a decided rosy tint or delicate rose violet tint in a diffused light, all having the decided rosy tint in a cross light. The papers selected from the files of old letters as corresponding to the stamps often show the original shade in the original fold and elsewhere and the changed shades over the greater part of their surfaces.

Giving up the attempt to distinguish the three papers by the color, I next examined the stamps by a microscope of fifty diameter power and divided them into three classes, examining every specimen in the same light, then in various lights in succession and was surprised at the uniformity of my results. Without multiplying detailsit is sufficient to say that the three papers can be distinguished with almost absolute certainty by this process. The first is clearly more compact, thicker and difficult to get into focus. The fibers that compose it have less broken stuff among
them and the spots which are probably single cells are almost always dark in reflected light and transparent in transmitted light. The second is looser in texture, has more broken fibers, many more spots, some of which are blue, though the larger number resemble those of the first paper. If examined with a low power or single lens, holding the stamp so that the light strikes it diagonally as well as the lens, ridges are seen upon its surface not corresponding to the lines of the engraving, but almost like those of ribbed paper, and the back has as we have said, generally a rosy tint. The thinner character of the third paper is very marked in the microscope, as the light is readily transmitted through it. The longer fibers can readily be seen interwoven with quantities of broken fiber between them and there are many of the blue spots. Its rosy tint has already been mentioned.

These same spots both the black and the blue, are noticeable in the corresponding letter papers. We know that the usual dye of the bluish papers of the period was indigo and some very interesting experiments are possible to determing pretty accurately the particular chemical combination used in producing colors with this substance and the changes it has undergone from the presence of chlorine, sulphurous acid, oxygen, etc., about it. I have never pursued these myself and do not know if they are applicable to such small quantities as may be present in these papers. A practical chemist was of the opinion that the adhesive matter, particularly if composed of gums, would be apt to have produced some of the effects noticed, or that the sizing might be responsible for the variations, but as every manufacturer of paper had his own processes in those days as now, it would be going too far to speculate on the canses of the changing color, perhaps, and particularly so in the absence of actual tests. The possibility and probability of natural causes having produced changes from the original color are probably quite sufficiently shown.

Having satisfied moself that the papers can be distinguiched, and that all the specimens hefore me were on
genuine original paper, thus making it improbable that any of them were produced by any of the processes of modern reproduction, my next proceeding was to disregard the character of the paper entirely and, using a low power microscope (about 4 diameters) to divide the specimens by the appearance of the printing into three classes. This I found also could be done with a great degree of certainty and that my results corresponded to $m y$ division by papers. Those specimens which belonged to the first printing have the lines very clear and distinct, and, even to the unassisted eye, as sharply defined as we should expect proofs for instance to be. The ink is also a brownish-black. Those specimens which I assigned to the second printing have in some of the lines a blurred appearance, and the ink is I think much blacker. Those specimens which I assigned to the third printing have again sharp lines, but the $y$ are weaker and again brownish in character. I mean that in this third printing less coloring matter seems to have been deposited by the plate, perhaps because the ink was thinner. This subdivision, I am happy to say, exactly agreed with that arrived at by the other process, the right specimens appearing on the right papers; that is, those assigned to the first printing on the first paper, and so on.

Re-axamining blurred specimens under the higher power microscope, I discovered that those assigned to the first printing showed little if any discoloration of the paper by the ink, those assigned to the second printing showed, however, at the sides of most of the lines a greyish discoloration often apparent in places to the unassisted eye, and besides a broader brownish discoloration, those assigned to the third printing showed a slighter trace of the greyish discoloration and none of the brown. The grey stain is evidently from the spreading of the color of the ink and the brown from the absorbtion of the oilby the naper. These facts indicate that either the first paper is the hardest and best callendered, the third the next best and hardest, while the second is the softer, or that the second ink contained both two much
oil and too much turpentine and the third too much turpentine. Perhaps both causes combined to produce the results and different practical printers have disagreed in their explanation of the facts laid before them. These facts however, will serve to further enable us to distinguish these printings.

Passing now to our examination of the varieties. we found Die A of the five cents on all three papers and with the characteristics of all three printings, and all three varieties of the ten cents in the same condition. Variety 3 of the five cents we found only on the first paper and of the first printing. Variety 2 we did not have, but it should be on the first variety of paper. Variety 2 of the 20 cents is on the second paper and evidently of the second printing. Variety 3 of the 20 cents we did not have, but it should be on the second variety of paper. The re-engraved varieties 2 and 3 of the five cents are all on the third paper and with the characteristics of the third printing.

Compared with the other values the numerals of the twenty cents are very different from the others, not only in being of a very different type but also in their execution. To repeat Mr. Kershaw's statement that he never engraved them is to express my own opinion and while he is positive that the plates never left his possession until the use of these stamps had long ceased, it is quite possible that his recollection is faulty in this particular also. The directory of the period shows that there was another plate engraver in St. Louis at the time. It would seem possible, shall I say probable, that Mr. Wymer being responsible for the value of all stamps printed from this plate would naturally have taken it into his own custody, and that the second printing was made by another. But even if the work was done in Mr. Kershaw's establishment it is not impossible that an assistant made the alteration of the plate.

The most careful examination made by Mr. Pemberton and that I have been able to make with various microscopic powers failed to reveal any tampering with the paper. In the specimen be-
fore us there is a slight space above the figures which is slightly more transparent than the rest but this is evidently where a hinge has at some time been fastened on. The space behind the figures does not seem however any more transparent or thinner than in any other part nor does any test made show any change in its surface by scratching. It has been said that printing ink cannot be removed by any process. This is not quite true. I have not been completely successful in my experiments hitherto in entirely removing printer's ink that had been printed a number of years previously, and do not think the numeral $\bar{j}$ could have been removed by such means in order to fraudulently substitute the 20 without leaving some trace that the microscope would detect, even if the color of the paper were not affected. Of the other variety or specimens I cannot personally testify. After examining this one I am quite satisfied to take Mr. Pemberton's examination as evidence that they also are untampered with.

This specimen presents less of the blurred appearance which seems to belong to the second printings about most of the lines than some of the 5 s and 10 s The numerals are very dark. The only other heavy lines of the design are the letters of Saint Louis and Post-Office and the large stroke over the latter, and parts of the frame lines. These are all dark, and, though none of them are as broad as the lines of the numerals 20 , when the stamp is viewed diagonally the ink can be seen standing up and shining above the surface of the paper on these parts as well as on the numerals. The same thing can be noticed in all the heavy parts of the 5 s and 10 s , particularly those of the same printing. This causes the numerals to appear darker in the photographs of the 20 , the other heavy parts mentioned being next dark and the lighter parts browner. The paper is, so far as 1 can judge, the same as the corresponding Die A, ${ }^{\text {a }}$ cents and the three tens of the second printing, and, under the microscope with a strong power, the dark and brown shading along the lines is very noticeable. There are also a number of little dark blurs


DIE B.
OR VARIETY 2
ENLARGED FROM THE PHOTOGRAPH IN THE SCOTT PLATE REPRODUCED ON ANOTHER PAGE.
Notes on Above leflestration-The enlargement of the midde stamp in the brd row of the sout plate reproduced on another page: A comparison of the three dies on this plate will show that there is litite difference th the tone of the inree ralues. A reproduction fron aun actual specimen should be darker and give the details such as the fine lines shading saint Louls. all the fine lines of the mumeal., etc., more distinetly. and as they appear in the illustration below. The fain sceidental marks such as the two faint lloes formint a right anfle above itud behind the P are not as dist ther as they should te.


## DIE B. <br> ALTERED TO 2OC.

FROM THE ORIGINAL LOANED BY AFAIEND.
Notes on Abovig lhasthation.-This enlargement is very satlsfactory and anfords a very good opportunity for trachur out the minute alterations. I atm unathe entirely to understand why the blur from the ball to the stem of the 2 ls so muth less distinct. and that from the ait to the stem so much more distinct than in the stamp or the smaller illustrution. It has to do whth the focusing of the canera. The aceidental variationsare falit. In some lights it does not take much mapination to see the ghost of the top of the original 5 in the blurs above the 20 .


DIE 8
REENGRAVED.

## FROM THE ORIGINAL LOANED BYAFRIEND

 ment the necessary puints come out palrly well surh as the curved line back of the 5 . the paw of the liear which in this sperimen shows liftle shading. the head whith however is darker lin some spectmens of the oricinal, the stip ith the $L$ of Louls. The atecidental peculiarities are rather fainter than in the original, and his faci do not show up well in any of the fllastrations.
about the 20. The largest of these is a little to the right and below the level of the 0 and a smaller one is in about the same position as regards the 2. Both of these are entirely separate from any part of the numerals. There are also three smaller ones in a similar position to the left of the 2 . None of these lie within the space formerly covered by the 5. There is a similar blur from the ball to the stem of the two below it. It is these blurs which are very evident in the photograph, said to have been made by Scott, that led, combined with the general appearance of the figures, to the supposition that the numerals were put in with a pen. Thefact, however, that the most of them do not touch any part of the numerals is sufficient evidence that they did not come from a spreading of writing ink. Perhaps they are peculiar to the specimens under examination.

Had the process of eracing the $\overline{5}$ been carefully done, none of the other lines would have been disturbed and none of the lines of the 5 would have been traceable on the 20 . The surface beaten up would have been perfectly polished and given no chance for the ink to adhere to it. These blurs, however, under the strong glass, are evidently caused liy the bad wiping of the plate, probally because it was rough in these spots, for they do not appear as smoutches. The one betweenthe ball and the stem above mentioned seems to fall where some of the lines of the former $\$$ were. The inner line of the frame which was above the 5 was partially but not wholly removed. The paw and head of the bear on the right seem to have suffered also. and the paw appears less distinct and is unshaded. The points of the ears are rounder and the snout has apparently been retouched, shortened and widened above, and all the lines of the shading of the head are coarser and further apart. The $L$ of Louis and all the strokes under both Saint and Louis seem also to have lieen retonched, but this may be because of the spreading of the ink. as before described, in grey and brownish discolorations, as this is quite visible all about the numerals. With a high power magnifier, it is evident that portions of the heavy parts of the numerals are
cut more deeply into the plate than the rest of the design, so that the paper has become sunken into them and the ink deposited in ridges. The ball of the 2 if it may be so-called, is formed by a heavy line with a broader crescent shaped mark to the right of it which would have given a leaf like shape to this point of the figure, but the blurring of the ink has extended into the fabric and up to the first line of the horizontal shading causing this part of the figure to end squarely. The thick part of the bow of the 2 shows a very heavy deep line, the ink having spread on both sides of it. Similarly the thick lower left point and tail of the 2 . The left hand number of the 0 is composed of two heavy strokes and the right hand member shows a very heavy deep cut line on the inside, and a number of less deep cut lines towards the outside, the latter having been worked into each other. Such details of the strokes made by the engraver are only apparent under a high power microscope and are united together in the apparent effect to the eye, i. e., there are no visible white streaks between them. It is hardly necessary to note that the horizontal shading lines start from the body of the numerals without any intervening white space or fine lines.

The $\bar{j}$ cent Die B , re-engraved, or of the third printing, is the fourth variety described in the History of the P. S. of the U. S., and as the third state of his Die 1, by Mr. Pemberton. The inner line of the frame mentioned in describing the 20 cents as having been partly erased has been replaced, and both it and the outer line above it have been bulged upward in the process. The top stroke of the $\overline{5}$ is not as long and is more alorupt on the right hand end than in the original state of the die, and the lines shading it are further from it. The ornament is a diamond instead of the triangle of the original top stroke. The diamond in the how is much larger than that of the original, and has four dots above and four below it, instead of the nine of the original. In the ball of this numeral which is blank in the original, there is a black mark, sometimes showing only in nutline. All the


DIEC.
OR VARIETY 3.
FAOM THE ORIGINAL LOANED GYA FRIEND




 Whichisumly fainaly ulaservalile in the or'inional.


DIEC.
ALTERED TO 20 CENTS.
ENLARGED FROM THE PHOTOGRAPH PUBLISHED日Y GAANT \& CO., REPRODUCED AS REARAANGED ON ANOTHER PAGE








DIEC.
RE-ENGRAVEO

FROM THEORIGINALOWNEDBY MR. MEKEEL.
 trintion fs very *itlsfactory, athel britug ond all lb"



 in Illis lllatrat lint.
horizontallines of the shading are coarser and the white curve below the ball is narrower than in the original. There is a curious curved line at the back of the bow of 5 and just beyond and to the right of the horizontal shading lines, which is a trace of the 0 of the 20 not completely erased. The paw of the bear has been restored, but is less heavily shaded, in some copies appearing ouly to have been outlined. The head shows the wider snout and rounder ears and coarser shading of the 20 . The four strokes under Saint are all moved to the left, the second one touches the bear's ear and is wavy, the right ends having been partly erased, the $L$ of Louis reengraved and a slip producing a fine line from the upper right corner of its vertical stroke to the inner frame line above, the whole stroke slanting upwards more to the right. Only three strokes under Louis, longer and stronger than in the previous states of the plate.

There are many minute lines peculiar to this die which appear in the original variety, in the altered 20 and the reengraved $\overline{5}$, such as that in the upper right hand corner, the inside frame lines do not join; the right hand upper stroke of the ornament in that corner is prolonged and crosses both the frame lines; the peculiar arrangement of the ornament in the upper left hand corner; the ear of the left hand hear nearest the numeral, showing three little shade lines; projecting beyond the outlines of the ear; the double end of the ribbon to the right and its upper point crossing the frame line. There are also, however, other faint accidental marks, such as the two very fine lines forming a right angle alove and behind the P of the "Post Office, etc., which are no part of the design and which it would be very difficult to imitate, but which, nevertheless, appear in all stages of this dic. The best test, however, to the practiced eye, is the perfect similarity of the engraving, and the conclusion of any expert must be that the bulk of the acsign could only be produced by an impression from the same plate. It follows either that the $\mathrm{s}^{\text {s }}$ has been erased or filled up on the plate, the necessary number of sheets printed from it, and on which both
the 20 and the new 5 were printed or drawn in separately afterwards, or that the numeral 5 was erased and such sheets printed on which the 20 was drawn in by hand and the new $\overline{5}$ was then re-engraved or that the numeral $\overline{5}$ being erased the numerals 20 were engraved and the plate so printed from and then the numerals 20 erased and the 5 re-engraved. There are too many known specimens of the re-engraved $\overline{0}$ cents, identically the same, to permit of the supposition that the numeral was printed in separately on this variety and if the original numeral had only been filled in temporarily as is sometimes done, then there would have been no necessity for re-engraving it and the two are much too different to admit of the second being a mere alteration of the first. That such was the process is, however, an impossibility, in view of some of the alterations mentioned, such as the change in the dashes and the $L$ of Louis. The re-engraved $\overline{5}$ must therefore have been produced as supposed in our theory. Can it be possible that the 20 was produced by filling up this re engraved plate and drawing in the numerals 20 by hand. Were only one specimen of the variety known such a supposition might be entertained, but two specimens are known in which these numerals are absolutely identical. Even if the supposition were true the value must never the less be anthentic. Possibly the various blotches we have noticed would then be accounted for and the variation in the bears head from the original, but how are we to account for the nearer identity of the $L$ of Louis and of the dashes in the original 5 and the 20 than in the 20 and the re-engraved 3 .

Before deciding finally, however, let us proceed to examine in the same way the 5,20 and re-engraved 5 of the die C. Not having the 20 of this die before us, we cannot enter into so minute description of the variations from the original die, nor trace all the minute resemblances, as the photograph of it does not show them. The points noted by Mr Pemberton are that there are only two strokes under Saint, one long and one short, that the two upper strokes under

Louss are half gone, the third entirely gone, and the iuwer one still there. It is a mere speck. That the inner line of the frame above the numeral is gone from $T$ to $L$ and part of the outer line above it.

We have now the advantage of describing the altered state of Variety 3 , or Die 3, of the 5 cents which Mr. Pemberton had no doubt existed, though he had not seen it. The upper lines of the frame, partially erased in the 20 , have not only been replaced, but slightly widened. The corner ornaments are rather clearer, as if strengthened. The L of Louis is recut and bowed. The top of the $\overline{5}$ is broader, the diamond shorter and not so close to the line above and below; the down stroke is blank, while that of the original has a straight fine line down its middle. The bow is less rounded, has a much slimmer diamond than the original, and there are but four dots below it, whereas the original has eleven. The upper dash under Saint is half gone, and only slight traces remain of the other three. The upper dash under Louis is also half gone and the other three are entirely gone. The bear's head seems to have suffered slightly for the rubbing. The heavy shading of the bow of the $\boldsymbol{j}$ is heavier, but ends before the curve begins to turn up towards the ball, while in the original it extends up to the level of the ball. In the ball is a misshapened black mark, unlike that in the former state. The fine line from which the lines of the horizontal shading start is further from this black shading than before, the shading shorter and coarser, and this line ends above the letter $\mathbf{N}$ of stand touching the line of the band about the shield, so that no horizontal shade line passes between the $\%$ and the shield, while in the original one of the horizontal shade lines touches the line of the band, and the one above it the fine line, leaving a clear blank space between the numeral and the shield, while the fine line itself continues on nearly to the end of the black shading. The top of the $\overline{5}$ is also nearly twice as far from the inner line of the top of the frame as in the original. There is also a spot to the right of the bow of the 5 , another in the
buw, a spot to the left of the down stroke of the $\overline{5}$ and two dots to the left a little lower than the ball, and another diagonally from the ball to the middle horizontal line of the $\overline{5}$. These are plainly brought out in some of the photographs, and are evidently traces of the 20 not well erased. Again, if we examine the original die 3 of the 5 cents, the 20 die $C$ and this re-engraved die 3 , we have the same little peculiarities in the engraving of all three, such as singular shapes of the letters, the points of the ribbon and others, and again acci. dental things that it would be very difficult to imitate. such as the line made by a scratch crossing the "E" of Unite and the bear's body to the left frame line, another scratch line running through the word Post and the "o" of office. Now these peculiarities preclude the possi bility of the bulk of the design having been twice or thrice engraved and identically with the same mistakes and blemishes. Mr. Kershaw certainly could not have done such a thing if he would and would not have done it if he could, but would have endeavored to rectify his blunders. That these are not reproductions by any modern method the character of the paper and printing, as well as the exact similarity of the engraving, proves beyond question. It follows that all the examples of this type of the $\overline{0}$ cents were printed from the same plate. The same possibilities of how these variations might have been produced and their improbability might be repeated with regard to this Die C as have already been commented upon with reference to Die $B$ and with like results. The existence of two such parallel series seems to strengthen the argument against any theory of their reproduction by any process except that of erasing the $\overline{5}$ in both cases, substituting 20 and again re engraving the 5 for another printing. There are so many evidences of alterations in the plate that this seems to me to have been demonstrated to have been the process, and, I think, the authenticity of the four varieties, 20 cents dies $B$ and $C$, 5 cents dies B and C altered. In the words of Mr. Pemberton, "I began as a skeptic. but ended a believer, having convinced
myself against my own prior judgment." To sum up there are then:

First printing and paper, $\overline{\text { a cents, dies }}$ A, B, C; 10 cents, dies $\mathrm{A}, \mathrm{B}, \mathrm{C}$.

Second printing and paper, 5 cents, die A; 20 cents, dies B, C; 10 cents, dies A, B, C.

Third printing and paper, 5 cents; die A. altered B and C ; 10 cents, dies A, B, C.

I do not consider myself at liberty to publish the names and dates that appear upon the original letters bearing some of the stamps I have examined, but it strengthens our theory somewhat to note that we had a 10 cents of the original or first printing on the original letter, and two of the altered Die B. 5 cents on another original letter, and that having completed the rest of our examination we found the first to be dated in December, 184n, and the latter in April, 1847.

