THE BEGINNINGS OF LITHOGRAPHY.

By EMANUEL GREEN, F.S.A.

The process known to us as Lithography, the art of drawing on stone, was early described as based on the dislike which water has for grease and the affinity which calcareous stones have both for water and grease or greasy substances. As with other important inventions it was discovered by accident, by one Aloysius Senefelder, who, born at Prague the son of an actor in the Munich theatre, was destined for the law, but all cash supplies being stopped by the death of his father he was obliged to leave his studies and in turn joined the theatre as a singer in the chorus. After enduring for some time the usual poverty in this position he gave it up to tempt fortune with his pen. The result was another failure, but during this time he was brought into contact with the printing press and learned something thereby: especially was he bitten with the desire for some form of cheap reproduction. Having no means to buy a press he made many experiments in engraving; thus it happened while so employed that his attention was directed to a stone he had purchased on which to grind some colours, it occurring to him that by writing on it backwards and biting in with aqua fortis he could print by pressure with but little trouble and multiply at no cost. The attempt was so far encouraging that he bought a stronger or thicker stone, and having settled on the quality or sort of ink to be used he was preparing this stone for an etching when his mother entered his workroom and desired him to write a list for the laundress who was waiting. Not a slip of paper nor a drop of ordinary ink was at hand, so the list was written with the prepared ink on the stone and left to be copied at leisure. When about to wipe this writing off the idea struck him to try what the effect would be if an impression were taken direct. This was tried accordingly, and encouraged by the result of various other

trials he began to foresee the probability of a new invention. Determined to follow up his experiments but being without money he adopted a curious plan and enlisted as a substitute in the artillery for the sake of the premium of two hundred florins, but on presenting himself for admission he was rejected as not being a native of Bavaria. With every feeling of despair he was obliged to return home without his cash. Next by chance a badly printed piece of music attracted his attention and as this sort of work seemed exactly suited for his new method he arranged with a musical friend who was about to publish some pieces, that they should publish on a joint account, and this they did with fair success. This was in 1796. Experiments, difficulties, and failures followed amidst great opposition and ridicule, until by the adoption of improvements and an improved press confidence in success was restored. By the year 1800 the process was so fairly established that a Mr. Andre, a music seller of Offenbach gave Senefelder two thousand florins to learn the business and to have a press of his own. Andre, assisted by his three brothers, then established presses in the principal capitals, and came to London with Senefelder in 1800, partly on business as his son Philip was settled there, and in part to learn how to obtain a patent. They deposited a caveat or circumstantial description of the invention at the Patent office, and then returned to Germany. These caveats seem not to have been preserved. There is no record of this act in any form in the Patent office. No actual patent was obtained. Andre, senior, came again to London in 1801, and, with the help of Philip his son, started a press, and then returning home left the son to manage the new venture.

The English name given to the new art was Polyautography, the especial idea being the multiplying actual writing or drawing in facsimile. There was of course plenty of opposition, especially from the engravers. It was called a mean art and failures were dubbed greasy daubs. Further an almost prohibitory import duty of twenty shillings per cwt. was put on the stone, and this with the heavy duty on paper made success almost impossible. Costly experiments, subject to often failure in the early stage of the art, could not be made on the bare possibility of a perfect impression. The duty on the stone was said to be for the purpose of stimulating search in England for a similar or equally suitable quality, and a reward was offered for such a discovery. None such being found, the duty was removed after three years. From the strong opposition, the many difficulties, and many failures the consequence often of want of skill, the art failed and Mr. Andre gave up the struggle and left England. His position was taken up by Mr. Volweiller, his assistant. Andre had projected a work as containing specimens of his process and had collected for the purpose drawings done by the best and most influential artists of the time. and parts one and two had been issued in 1803 before he left the country. Mr. Volweiller keeping to the plan issued the following circular, itself very neatly lithographed, and perhaps the first of its kind. As it must be unique it is given in full as showing, better than any epitome could do, the ideas of the time and the plan pursued to obtain patronage.

G. J. Volweiller, No. 9, Buckingham Place, Fitzroy Square, most respectfully informs the nobility and gentry that he has undertaken the management of the art of printing from stone called Polyautography, lately under the direction of Mr. P. André and continnes (sic) the publication of specimens of Polyautography commenced by him.

This work consisting of impressions taken from original drawings made on stone claims the attention of the lovers of the art in a two-fold respect; in the first place it furnishes very excellent studies by the best artists of this country, in every kind and in every style; secondly, it shows the true and unmixed style of the most distinguished artists, the impressions being taken from the drawings themselves they are but multiplied originals. Mr. Volweiller has had the high honour of laying the work before Her Majesty and their Royal Highnesses the Princesses who honoured it most graciously with their patronage. It is published by subscription in numbers containing six drawings each, price 10s. 6d. a number,

and six numbers will form a book. The fourth number, which has just been published, accompanies this advertisement as a specimen, and the editor flatters himself that the lovers of the art will kindly encourage him in his undertaking by favouring him with their subscriptions for the publication of so valuable a work; to whose praise it will be sufficient to mention the names of the artists who have already been so kind as to honour it with their drawings, viz., Messrs. B. West, P.R.A., T. Barker, J. Barry, H. W. Chalon, R. Cooper, R. Corbould, W. Delamotte, H. Fuseli, R.A., C. Gessner, W. Hawell, T. Hearne, Ch. Heath, R. Ker Porter, W. H. Pyne, J. T. Serres, T. Stothard, R.A., H. Singleton, R. L. West, and some distinguished dilettanti. The four numbers already published may be had of Mr. Volweiller and the principal print-sellers, and the fifth and sixth numbers which close the first book shall appear without delay.

Those who will encourage the work by their subscriptions please to put their names at the bottom of this; and

in the course of two days it shall be called for.

Those who already had knowledge of this art whilst under the direction of Mr. Andre will find it considerably improved by its application to letter and music printing of which the present advertisement, as well as the title page and the enclosed sheet of music, are specimens.

For those who are not yet acquainted with this art the following short description will be sufficient to show the great usefulness of this invention. A drawing or any other subject intended to be printed is made on a stone with a pen and a particular ink or with a kind of chalk, which may be done with the same facility as on paper, and every person who can draw on paper may draw on this stone. By a simple chemical process this drawing is rendered capable of being printed off in any number of copies without the least alteration of any stroke or dot on it, so that the impressions are perfectly like the original, and by means of this invention the art obtains an advantage never known till now, both in preserving and multiplying the works of great masters in their perfect originality.

In the application to letter-press printing this art may be likewise highly useful, as circular letters, &c., &c., written on this stone may be printed in any number and one hundred fair copies ready for circulation may be taken in an hour.

Amateurs and artists who wish to multiply their drawings may have them printed by Mr. Volweiller who furnishes a stone and the necessary materials for drawing and of whom further particulars may be had.

Having completed the volume by the issue of parts 4, 5, and 6 the title of the published work, in folio, ran:—

By His Majesty's Royal Letters Patent; and under the patronage of Her Majesty and their Royal Highnesses the Princesses.

Specimens of Polyautography consisting of impressions taken from original drawings made on stone

purposely for this work.

London, published May 1806, by G. T. Volweiller; patentee, successor to Mr. André, No. 9 Buckingham Place, Fitzrov Square.

The first plate, by Benjamin West, is dated 1801, and thus must be the very earliest: the plates by Ric. Cooper, R. Corbould, W. Delamotte, and R. L. West are dated 1802. The plate by Thomas Barker of Bath, a full length figure, is not dated, but it may be placed as done in 1803. Notwithstanding that the President of the Royal Academy appeared as a contributor and that the critics considered the volume a proof of the accuracy, distinctness, and minuteness with which this work could be done. the opposition of the engravers was too strong, and the trade could not be induced to take up the new art. Persevering efforts however were continued especially directed to enlist the sympathy of amateurs. From the Polyautographic office was issued another circular, which shows us how this was done and the direction in which the process was pushed. It is entitled:—

Terms for amateurs who wish to draw on stone and to have impressions taken from it, Mr. Volweiller lends a stone, gives the ink and chalk necessary for drawing, and delivers fifty impressions of the drawing made, at £1 11s. 6d.; or twenty-five impressions at £1 1s. If more impressions are ordered the price of one hundred

copies of drawings in chalk is £1 11s. 6d.; fifty copies 16s.; twenty-five copies 9s.;

100 copies of drawings in ink £1 1s.
50 ,, ,, ,, 12s.
25 ,, ,, ,, ,, ,, 7s.

The paper to be charged extra.

The stone with the drawing must be returned in a fortnight's time; if kept longer it will be charged with

half-a-crown per week.

After the delivery of the first twenty-five or fifty impressions the stone remains eight days for further orders and if these are not given within that time the drawing is erased. If it is desired to let the drawing remain longer on the stone five shillings per month will be charged. If a single or a few prove impressions are desired they will be charged one shilling a piece.

The patronage resulting was again so small, and the sales continued so few, that Mr. Volweiller to avoid further loss than he had already incurred closed his establishment and left England in 1807. Besides the other difficulties, there was at this time but little appreciation of art in any form. The best engravings were looked upon as simply a lot of black lines on white paper. Mr. Landseer too, in his Lectures on Engraving, whilst willing to allow there were some possibilities for the new art, warned his auditors "not to be led away by the false lights of a specious prospectus."

In 1806 one attempt was made to use the process in a book illustration, viz., by J. T. Smith in his Antiquities of Westminster, published in 1807. This "new mode of producing prints" is minutely described, and besides the author, there were present two eminent medicos and a scientist to watch the process. The plate was drawn with a common quill pen dipped in the prepared ink, which was the trade secret long closely kept. The great advantages expected were frustrated by a misfortune or accident, as after printing off three hundred copies the stone was laid aside for the morrow and when then worked, the drawing being dry stuck to the paper and was drawn away from the stone. Con-

fidence being thus lost the attempt was not repeated, a copper-plate being substituted. Thus some volumes of this work have two plates, others only one. This accident was, perhaps, the greatest blow the new invention could have met with.

After Volweiller's departure the art ceased, was entirely neglected, and seemed likely to be lost, had not Mr. Redman, one of his assistants, been discovered and employed at the Horse Guards in 1811, for printing plans of battles, circulars, &c., but not getting here sufficient pay he left the work, and so lithography again

ceased to be practised in London.

Mr. Redman next moved to Bath, where he started for himself in 1813. Probably more than one reason influenced this move. Mr. Thomas Barker may well be considered to have had something to do with it. Bath, too, was a literary centre, the only provincial place where an artistic coterie could be found; and where some good letterpress work could be, and was, executed. Further the stone required was supposed to have its counterpart in the neighbourhood. The stone brought from, and supposed to be peculiar to, Germany, as in fact it still is, was thought to be "precisely the same as the White Lias or Layer found in such great abundance in the immediate neighbourhood of Bath, being the stratum lying under the Blue Lias, used for burning into lime, paving the streets, and for coarse walling." For the purpose of lithography no other stone was considered so eligible, as it took a very good polish, was compact, fine grained, and absorbed water, and it could be procured of any superficial dimension required. The "immediate neighbourhood" here was Corston, but this encomium did not hold good as in the end this stone was found to be too soft and porous and had to be abandoned. As showing how an error may creep into a statement, either from want of knowledge or careless inexactness, a writer, writing on this subject some years later, in 1829, says, "The stone used is not unlike Bath stone, the best substitute hitherto discovered in England." So that here the White Lias has quickly become Bath stone; hardly acknowledged to be the same thing.

Mr. Redman being in Bath the new art was briskly pushed, especially as before amongst amateur draughtsmen. In this year was printed at Bath in octavo, the very first pamphlet on the subject ever printed. It is entitled:—

Lithography, or the art of making drawings on stone for the purpose of being multiplied by printing. With two drawings. By Henry Bankes.

This very interesting pamphlet consists of twenty-three pages, and is dated September, 1813. It gives full particulars of the process, and the author in his eagerness writes:--" What a rich inheritance might have descended to us if the old masters had possessed this art. The rapid effusions of the imagination, the spirited sketches and brilliant first thoughts, never perhaps realised even in the finished painting might have been given to the world with unlimited liberality. Whatever the poet has effected by means of the press, the painter would have achieved with the same facility. How many works of topographical description or discovery in natural history have been imperfectly illustrated for want of drawings which this art might have afforded at an expense no longer an objection." The specimen drawings given are not signed or initialed, but in style they closely resemble that of Mr. T. Barker. One, an old woman seated and wearing a large slouched hat, is almost the same figure as one by him. This pamphlet has another interest as it tells us that this process was first called Lithography at Bath; in fact the title page gives the first example of the use of that name. On page 8 the author says, "I have taken the liberty to change the name to Lithography with a view to confine the invention to drawing as strictly the first branch of the Fine Arts. It never can equal an engraving on copper or indeed answer any purpose to which the graver is appendix. It has a higher destination from which it ought never to be diverted." The author also says that the stones of Polyautography had passed into his possession and that he proposed to republish in parts, but this does not appear to have been done.

Mr. T. Barker was early busy with the new art, and besides some single impressions, in this year 1813, he published a folio volume at "the flattering solicitation of friends" which is the first private venture in England; Polyautography being a trader's issue and more of the nature of an advertisement. The work is entitled:—

Forty Lithographic impressions from drawings by Thomas Barker selected from his studies of Rustic Figures after nature. Published by subscription at Bath, December.

This may be taken as the first printed use of the word lithographic. The plates, all figures, are mounted in the folio and are all good; some, being on toned paper, are especially strong. The volume as a whole must have given a clear idea of the intention, as being the reproduction of drawings exactly showing every characteristic of the artist. No more than two hundred copies were promised at a subscription price of £3 3s., nonsubscribers £5 5s., and had the work been a success this would have produced a good profit. The list of subscribers, however, shows but one hundred and seventeen for one hundred and eighteen copies, and probably there were no other sales.

Mr. Barker also planned the issue of a volume of sketches from Italian peasants, but this was never done. Mr. Barker next issued in folio, in 1814, another volume differing in style, for the purpose of showing how the art could be applied. This work is entitled:—

Thirty-two Lithographic impressions from pen drawings of Landscape scenery. Published at Bath. Printed under the direction of Mr. Barker by D. Redman.

Fifty copies only were printed. The title cover is lithographed, the etched part being by Mr. Barker and the written part by C. Marsh. The plates are land-scapes, some from the immediate neighbourhood, others from Wales. They are drawn with a pen as free etchings without shading. Close examination shows them to be good and pleasing. Four numbers was the issue origin-

ally planned at one guinea and-a-half each number, but this plan was changed and the whole was put into one.

Several amateur attempts also were at this time done at Bath. Mr. Richard Warner the historian did a sketch portrait of Jedediah Buxton. Sir Richard Hoare did a large landscape, and there were others by other local celebrities. The local activity resulted in the production of a little collection of drawings in small quarto size, undated, but probably 1814, called:-

Eight Lithographic impressions by the following gentlemen artists of Bath: -Mr. J. Hibbert, Mr. Hulley, junr., Mr. West, Mr. Morgan, Mr. Marsh, Printed from stone, and published by Mr. Haves. D. Redman.

The title cover is by Mr. Hayes. Mr. Morgan gives a view at Hampton. Mr. Marsh two views of Hampton ferry, one being in chalk; and Mr. Lowther also gave one in ink and one in chalk.

But after all, Redman's attempt to establish himself and the new art at Bath proved a failure, and he returned to London, where he is found in November, 1815, at 15, Bishop's Walk, Lambeth. He here issued a card prospectus, which reads:—

D. Redman, Polyautographic printer.

Ladies and Gentlemen may have their original drawings multiplied to any extent on reasonable terms.

100 impressions f						
the stone for or						
50 ditto						6/-
25 or less ditto						5/-
100 impressions from chalk drawing, including						
prepared crayons and use of stone for one week 10/6						
50 ditto						8/-
25 or less ditto						6/-

Larger numbers a liberal allowance. Paper charged extra, but may find their own.

Stones may be purchased for exclusive property at 10/6. For the execution of drawing and return of stone one week; beyond that 1/6 a week charged until amounts to 10/6, when the stone will be considered paid for.

Entire strangers will not be offended at a deposit of

10/6 being required from them.

By his zeal and determination and by forcing public attention Redman just kept the thing alive for a short time, but with no successful result to himself, and so he too disappeared. Failing trade support, the appeals had always been made to private artists. This could hardly be expected to produce a great profit, as but few could have any reason except curiosity for producing their drawings in any numbers. Eventually Mr. Ackerman, a printseller, interested himself, and started a trade press in 1817. An amateur however had the first attempt with it. There were extant in 1851 the following lines by the author of Dr. Syntax:—

I have been told of one
Who being asked for bread,
In its stead
Returned a stone.
But here we manage better
The stone we ask
To do its task,
And it returns us every letter.

(Signed) WM. COMBE, January 23, 1817. Underwritten: This is the first impression of Ackerman's Lithographic

press.

In 1819 Ackerman printed a book entitled:—A complete course of Lithography, &c. Herein he expressed an anxious wish to see the process naturalized. Some specimen plates, not good, are given, and these were the next issue after the Bath volumes. Thus at last taken up by the trade, slow, very slow progress was made. The next worker was one Hullmandel, who printed a pamphlet on the subject. In 1824 his name appears in the volume of the Geological Society's Transactions to some plates of the Radstock coal field, with the editorial announcement that for the first time lithographic plates had been substituted for engravings on copper. Some good work was now done. In 1829 a writer notes: this is an age of wonders, of gas, steam, and lithography; yet nevertheless some years passed before the plan became thoroughly established. About or a little before 1840 the applications for patents, for some slight difference in working, show that by then it was fully used.

The first fears of the engravers have been realized, as at the present time their art has almost ceased, being ousted by the newer one or the various improvements upon it.