## THE MECHANICAL EXECUTION OF WILSON'S "AMERICAN ORNITHOLOGY"

## BY FRANK L. BURNS

Though a little more than a perfunctory perusal of the original edition of the "American Ornithology," or of almost any one of the better biographies of Alexander Wilson, might have saved more than one well disposed commentator from erroneous impressions in reference to the personnel and incident in connection with the mechanical execution of that much discussed work, a "rehash," as the petulant critic might term it, seems inevitable especially in the light of some unpublished data and a mass of undigested published notes and letters. It is well known that Wilson's real literary career began early in 1806 when he became assistant editor of the American edition of "Rees's Cyclopaedia or Universal Dictionary of Arts, Sciences, and Literature," revised, corrected, enlarged and adapted to this country; published by Samuel F. Bradford, bookseller, and Murry, Fairman & Co., engravers. Wilson's duties included a general supervision of the mechanical department.

The exact terms of his later agreement with Bradford do not appear but it seems that the latter was to furnish the funds for the actual publication and advertisement of the "Ornithology," and the former at his own time and expense, the text, drawings, general supervision, and as it subsequently developed, a personal canvass for subscriptions. This enterprise aimed to show the growing resources of the infant Republic. The publisher determined to spare no expense to attain mechanical excellence and to make the publication in the highest degree creditable to his country. Thomas Amies of the Dover paper mills, carried his patriotism so far as to insist upon domestic rags only in the manufacture of the stock. The much admired letterpress was from new type cast in improved molds by the Scotch-American typefounders, Archibold Binney and James Ronaldson, and printed by the well known Second Street firm of Robert and William Carr.

James Keim furnished the copper plates, and of the engravers, George Murry, chief and best engraver of the natural history illustrations in "Rees's Cyclopaedia," was responsible for Plates 3, 7, 9, 15 and 26, but the last had to be finished by Lawson, and Murry's connection ceased as soon as Wilson realized that he could no longer be depended upon. Benjamin Tanner, a line and stipple engraver of many fine pictures, signed Plate 32 of the fourth volume, and John G. Warnicke, who was associated with Tanner, engraved twenty plates

for the last five volumes, his figure of the Ruffed Grouse being much admired. Alexander Lawson signed fifty of the seventy-six plates and was Wilson's chief reliance, since he worked with equal fidelity and facility from the finished drawing or from mere outline and the actual specimen; in time of stress he was a most efficient and faithful friend of Wilson.

Proofs were made as the engravings progressed, improvements suggested in pencil by the artist, and as fast as John Vallance, noted for the excellence of his script, had lettered the plates, they were delivered to Joseph Brown, the plate printer. Wilson had some slight knowledge of the latter trade through temporary employment with a copperplate printer soon after his arrival in 1794, and now endeavored to introduce printing in colors after the French method which was thought to give the effect of softness to the plumage, and some of the proofs were attempted in colors, but as Ord has remarked, without success. Impressions of the first two plates delivered on May 22, 1807, were intended for advertisement; well colored specimen prints were to be delivered with the prospectus to Bradford's agents in the various cities on the Atlantic coast. It was with this object in view as well as Wilson's own failure to lay on the color smoothly, that induced him to diffidently address his Quaker friend, William Bartram, hoping to enlist his niece Ann in the process, suggesting as a possible aid to lessen the drudgery, Mary Leech, a former pupil and daughter of the "Sorrel Horse" blacksmith with whom he boarded while teaching at the little schoolhouse across the way. His appeal apparently was without success since there appears no further allusion to the matter. A recent writer has stated: "In that day the hand coloring of engravings was a common practice, and shops of colorists were maintained by publishers." In this country at least this art was in its infancy; Bradford, "the most enterprising publisher in America," had no such shop. There was not a single professional colorist in Philadelphia at this time; indeed Ord relates that Wilson had great difficulty at first in fixing the proper tints over the engravings and that he had to experiment unaided by the council or example of others.

Charles Robert Leslie, who became a celebrated painter as a pupil of Benjamin West, was at this time an apprentice to Bradford and Inskeep, and writes that he assisted Wilson to color some of his first plates, working from specimens of birds. He further comments upon the artist's drawings and how carefully he had counted the number of scales on the tiny tarsi and toes of his subjects.

Wilson has stated in the preface of his second volume that hitherto the whole materials and mechanical parts have been the production of the United States, except the colors, for which he was indebted to Europe. In that volume some beautiful native ochres were introduced, and one of the richest yellows was from the laboratory of Peale and Son of the Museum, and other tints of equal excellence were confidently expected from the same quarter. Wilson certainly became the expert colorist through his work on these early volumes.

Wilson's success in his southern canvass was not great, yet the edition of 200 sets was oversold (458 sets were eventually subscribed for at \$120 the set of ten volumes) and the publishers found it expedient to increase the edition to 500 although this necessitated the resetting of the type for the first two volumes for the additional 300 copies, which, with the slight changes in the text, became actually a second edition. Therefore, before Wilson's departure for the Mississippi valley early in 1810, he employed Alexander Rider, John H. Beck, and Prosper Martin, as colorists to finish a batch of 800 or more prints obviously of the initial volumes of the original edition. This work was evidently done at the homes of the colorists, the rate was fixed at twenty-five cents per sheet, and the whole submitted for his approval early in January, when volume two was published.

Doubtless the mechanical work upon the "American Ornithology" had not materially progressed beyond Lawson's steady grind during Wilson's long absence in 1810, but soon after his return from New Orleans, Lawson delivered all but two of the engravings for volume III (Plates 19-22 on September 13, and Plates 24 and 23 on October 8 and 15, for which he receipted to the amount of \$339). On September 14 Brown had made 3,208 additional impressions of plates for volumes I and II (second edition) and 800 for volume III, and October 10, 930 additional prints of the first four plates of the latter volume, for which he was paid at the rate of \$1.50 per hundred. Evidently there was no delay in apportioning the sheets among the colorists, Rider, Beck, Anna C. Peale, Eliza Leslie and Louise Adelersterren; since some finished plates of the initial volume were returned for binding by September 22, and all of the first two volumes, second edition, were finished by November 3 and the third volume well under way. The last three colorists contributed no work to the latter volume, Prosper Martin and John H. Hopkins filling in up to January 15, 1811, when the plates of that number were about completed.

The work of Alexander Rider probably occurs more or less in every volume, he appears to have been the only professional "fancy painter" of that time in Philadelphia, as well as the most rapid and industrious. Dunlap's assertion that Rider came from Germany in 1810 in company with Krimmel, the portrait painter, has been copied by all later biographers. In fact he worked for Wilson in 1809, and doubtless came to America possibly prior to 1808 as assistant to A. Enslen, botanical collector for the Austrian Emperor (Cf. Ord, Am. Orn., vol. ix. p. 71). Enslen died in Philadelphia about 1812. Rider was later employed by C. L. Bonaparte, both as colorist and artist, not always satisfactory in either capacity. Malvina Lawson refers to him as the Swiss painter in oil who also understood water colors, but in order to facilitate his work ruined a great many sheets by the introduction of opaque colors. Prince Bonaparte in an outburst of impatience wrote Lawson: "That confounded Rider has enraged us to a pretty considerable extent. Look at volume first, all the red and orange tints have been obliterated! Shame on him for employing such colors!"

Among the talented amateur artist-colorists of the earlier volumes of Wilson's "Ornithology," Anna Claypoole Peale, niece of Charles Willson Peale, became an excellent miniature painter. Eliza Leclie always sent her kid brother Tom with her modest output and he took the brunt of Wilson's criticism. She was only less talented than her brother and upon a visit to London made excellent copies of many of her brother's and Sir Joshua Reynold's pictures. She however gave up painting for literature and her writings were immensely popular for the time.

John Henry Hopkins, later Bishop of Vermont, resided with his mother in Philadelphia where she conducted a fashionable school for young girls. The young man of eighteen years was the drawing master and was very glad to secure so lucrative and apparently congenial employment as that of colorist; but after a few brief months of mechanical repetition, most gladly threw down the brush. Many years later he intimated that Wilson took no chances on the fading of the beautiful tints of life but whenever possible shot a fresh bird for his colorist to match by. It is said that in water colors Hopkins had no superior in this country and that Wilson was very much pleased with his work. Later in life he wrote some humorous verses entitled "The Colorist's Lament," after a somewhat similar experience.

In the preface of the fourth volume, written September 12, 1811, Wilson announced that the correct execution of the plates would be rendered more secure by the constant superintendance of the author and by the coloring being done in his own room by two able assistants whose skill and attention leave little to fear in this department. Heretofore the great precision requisite in this last process and the

difficulty of impressing every one with similar ideas of neatness and accuracy has been a constant source of anxiety, loss, and delay.

Volumes V and VI were probably colored by Rider and another, probably Beck, under the conditions as set forth, but Volume VII was colored chiefly by Wilson himself, for he writes Bartram, April 21, 1813, "I have been extremely busy these several months, my colorists having all left me; so I have been obliged to do extra duty this last winter." This additional task meant the coloring of upward of 4000-4500 sheets, of which his most rapid colorist had averaged about thirty daily in the earlier volumes; nevertheless, the apparently indefatigable author further contemplated coloring the chief part of the eighth volume also. To the remonstrations of friends he said, "Life is short and without exertion nothing can be performed!" The publisher, who long since had found the expense burdensome, was glad to reduce the series from ten to nine volumes in agreement with the author.

It is thought that Rider finished the coloring of the two posthumous volumes edited by George Ord, and the latter's significent remarks in substance tell the whole story. Independently of that part of his work which was his particular province, viz, drawing his subjects and writing their life histories, he was necessitated to occupy much of his time in coloring the plates; his sole resource for support being in that employment, as his duties as assistant editor of the Cyclopaedia had ceased. If this work could have been done solely by himself he would have been relieved of much anxiety, his mind being daily ruffled by the negligence of his assistants and much of his precious time was spent in the irksome employment of inspecting and correcting the imperfections of others. This waste of his stated periods of labor he felt himself constrained to supply by encroachment on his hours of rest. But the true cause of this extraordinary toil was his poverty. To support the heavy expense of procuring materials and other unavoidable expenditures, his only resource, as has been stated, was in coloring the plates.

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