AN ADDRESS*

TO THE

National Photographic Association of the United States,

Delivered at Cleveland, Ohio, June, 1870.

BY ALBERT S. SOUTHWORTH.

Mr. President and Gentlemen of the National Photographic Association:

THREE days of the allotted period of our convention have already passed, and if I may not be allowed to estimate the exact measure of the pleasurable emotions which each of us have enjoyed, I have no words adequate to express the perfect, and full, and exquisite delight of my own. I came here with the expectations of an ample and an abundant source of interest in studying the specimens which might be spread for our viewing. My vision has been filled to overflowing.

I came to exchange the heartiest greetings of fellow sympathy and kindness with every member of the Association, with every brother photographer I should meet. I have been received more heartily than I have faculties and power for returning. I came to treasure up the words of wisdom as they might be uttered by the speakers here. I came, not to call back those farther advanced onward and upward the hill of science and art than myself, but that I might listen to what they had long since learned. I came also to render any assistance in my power to those weary and struggling from lower down the rugged steep which we are all striving to ascend. I have been an attentive observer and a careful listener. I knew I should find it harder to keep silence than to speak, and easier to find a beginning than an end of what was important to be said.

That I might not exceed the limit of a single half hour, or risk the multiplicity of topics in detail, I propose to read an address, although it may not be in my power to disguise the fact of a lack in my case of such an education and training as would have aided me in taking a deservedly high rank either as an amateur or as a practical artist. My trials if rehearsed would be found common and consistent with the experience of multitudes in the profession and practice of photography. My purpose is to hold up before you the importance of the greatest efforts to attain the highest possible perfection in our art and the highest possible standing in our profession. The elementary manipulations and knowledge of first, principles of mechanics, and of the sciences of optics and chemistry,
and the all-important subjects of outline and chiaroscuro, in any detail, I cannot enter
upon within my allotted time, unless to make a single allusion to the immense importance
and absolute necessity of acquiring perfect control of each, separately and in
combination. To embrace even the importance and principal subjects would require much
time and many addresses.

It is fit that I express to you my most heartfelt pleasure and thanks for the opportunity
of a sincere and earnest effort to benefit and further the interests and usefulness of our
beautiful, refined, and wonderful art; that art which we now as a body claim as our own
by profession, and in the practice of which we are devoting all our best energies and
efforts. Not yet has the usual period allotted to a single generation elapsed since Daguerre
announced its birth to the world. But a few months after this announcement, a French
gentleman accompanied Professor Morse on his return from Europe to New York, for the
purpose of introducing and practicing daguerreotyping in that city, at his special request.
His method was by lectures, experiments, and illustrations by specimen-views made at
the time in presence of the audience.

Professor Gouraud [Gouraud—ed.] soon lectured in Boston. His illustrative experiment
resulted in his producing a dimmed and foggy plate instead of the architectural details of
buildings, and the definite lines and forms of street objects. It happened to be a misty day
attended with both snow and rain.

The Professor appeared highly elated, and exhibited his picture with great apparent
satisfaction, that he had it in his power to copy the very mist and smoke of the
atmosphere in a stormy day. Many a photographer has often wished for some natural
phenomenon that might serve as a pretext for attributing to some apparent cause the
faults of imperfectly understood chemical combinations, or partially polished plates.

Professor Morse had from the first great interest in Daguerre’s discovery. Himself an
artist, the President of the Academy of Fine Arts in the city of New York, a man of
science, of liberal education, and refined culture, he had long before unsuccessfully
attempted to fix the images as seen in the camera obscura. He entered at once upon the
philosophical and practical experiments so nearly allied to his favorite art. This was
precisely at the same time he had become absorbed in his experiments with the electric
telegraph, that he was erecting a glass-room and arranging a studio for making
daguerreotype portraits. He encouraged the Messrs. Scovill thus early to enter upon the
manufacture of silver plates, at great cost in the preparation, for said he to them, “There
will be such demand for them soon, that they will be used like paper.”

Professor Morse was not less sanguine of the success of daguerreotyping than of that
which has attached to his name a worldwide and enduring fame and renown. Thirty years
ago last winter I found Mr. Joseph Pennell, of Brunswick, Maine, assisting Professor
Morse in the Professor’s own building on Nassau Street. Mr. Pennell had a few months
previously graduated at Bowdoin College in his native town. He had gone to New York
for the purpose of prosecuting a professional course of study, and had been led to interest
himself in Professor Morse’s experiments, for the purpose of procuring pecuniary
assistance by some employment of his leisure hours. He had been my former school and
room-mate, and had written to me to visit New York and learn respecting the new art. He
invited me also to join him as an associate in business for the purpose of making
likenesses. He introduced me to Professor Morse, and from him we received all the
information and instruction he was able to give upon the subject. Little was then known
except that a polished silver surface of plate, coated with the vapor of iodine in the dark,
and exposed in the camera obscura for a certain time, and then placed over fumes of
mercury, would develop a picture in light and shade, the shaded parts being the black polished surface of the plate, and the lights made out by the mercury chalked upon and adhering to it. I do not remember that Professor Morse had then made any likenesses. Very clear distinct views of Brooklyn in the distance and the roofs in the foreground, taken from the top of the buildings in Nassau Street, were upon his table. I do remember the coil of telegraph wire, miles in length, wound upon a cylinder, with which he was experimenting, and which he had prepared to carry over to the New Jersey side, and extend for the purpose of testing the practicability of communicating between distant points by electricity, and the use of his alphabet of dots and marks. And here, out of gratitude to him whose kind and genial traits of character are proverbial, permit me to state that with his permission we placed his name for reference upon our first business card in Boston. The Messrs. Wolcott & Johnson were then experimenting with reflectors, and had succeeded in making pictures from life.

Mr. Pennell accompanied me from New York to Cabotville, now Chicopee, and there we commenced our career of experimenting, and began our business of daguerreotyping, on a capital of less than fifty dollars. We had the sympathy and substantial assistance of the Messrs. Ames, Chase, Bemis, and other manufacturers and mechanics and business men. We made progress in 1840 in adapting apparatus to views and to miniatures from life. For the purpose of more rapid action by increased light, we planned and made a speculum thirteen inches in diameter, thirty inch focus, and weighing fifty-five pounds. We were at that time aware as now that as much perfection was required for the best lenses for the camera, for pictures, as for the best telescopes for astronomical purposes, and consequently at as great expense. How were we to obtain an instrument which ought to be worth ten thousand dollars? Even at this day, when there are engaged in the photographic art persons of ample means, there is not, nor has there ever been made any set of lenses for the camera, which, if the same in value were arranged for the telescope, would be considered worth using. A large fortune would be required to fit up apparatus and rooms for portrait making, as well as might be done, and benefit the quality and value of the pictures. Lenses necessary for everything that is possible have never been sought for, and have never been made. The spring of 1841 found us in Boston deeply in debt contracted in our experiments during the previous year. We were among strangers, without funds, and often unable to take our letters from the post-office. Postage was not in those days required to be prepaid, and business letters were usually 12 1/2 or 18 3/4 cents each. Our whole expense of living was sometimes as low as seventy-five cents per week. In almost any established business, with the same industry and economy, we should have accumulated money. We had our discouragements and we had our successes. In the fall of 1841, we sent a case of our daguerreotypes for exhibition to the fair of the American Institute, and received the first premium for the best daguerreotypes. The case was sent and returned by express, and we never knew a person connected with the fair. This encouraged us and stimulated us to effort, and led us to hope to be able to keep up with, if not to lead, our competitors. In 1842, our rooms, in Boston, on the top of Schollay’s building, between Court Street and Tremont Row, opposite Brattle Street, were exchanged for old 5 1/2, now No. 19 Tremont Row, and the name of your humble servant and his worthy partner, Mr. Josiah J. Hawes, is still over the entrance.

Mr. Hawes took Mr. Pennell’s place in 1843.

Improvements in apparatus and the use of bromine had helped us to use a light comfortable to the eyes, and permit us to work in about one minute in the best light in the day. We now began to electrotype our plates, improving their polish, and thus greatly
improving our pictures. We invented and perfected and patented our swing polishing plate-holder. For us this was a great acquisition, for it enabled us to finish our plates with great perfection. In the spring of 1846, we made daguerreotypes of the sun in eclipse in its different stages, with the spots as they appeared through the telescope. We used an object-glass out of a telescope, kindly furnished us by Messrs. Widdefield & Co. This I doubt not was the first successful copy of an eclipse. We at this time made several daguerreotypes of the moon. We had also arranged our triple lenses by which we were enabled to copy straight lines, and with which we afterwards copied Allston’s sketchings upon engravers’ plates for Mr. John Cheney, who engraved them upon the lines as daguerreotyped, we having previously proved, by trials and experiments before the trustees, that we could keep the drawing perfectly on plates sixteen inches square.

In 1846 and 1847, we invented a camera for making several different pictures in the axis of the lens successively at different times, and this apparatus was afterwards patented. In 1850, Mr. Hawes arranged a solar camera with movable mirror or reflector, and a twelve or thirteen inch condensing lens. In 1852, we discovered the principle upon which stereoscopic pictures must be made to be free from distortion and suitable to copy as models, which neither Wheatstone nor Sir David Brewster had accomplished. In 1853, we finished our grand parlor stereoscope. In this instrument pictures appeared to most observers the size of nature. And at this day, were it not for the expense, it would be one of the most desirable methods of exhibiting photographs, and by far the grandest and most striking of any within our knowledge. In 1854, we arranged our movable plate-holder, and afterwards took out a patent for it. This is the sliding plate-holder patent now in controversy, having once been settled in our favor, and now to be adjudged by the Supreme Court at Washington next term. This patent has had three special examinations at the Patent Office, and one finished trial on its merits, and has been abundantly sustained in a legal point of view; and so it has on every principle of justice and right deserved. You will, I have no doubt, pardon this allusion to this legal controversy.

In 1855, we practiced softening our print by separating slightly the surface of the negative from the silvered surface of the positive paper, and by using more than one negative. We acquired perfect facility in controlling at pleasure the harshness and hardness of the prints, and rendering them soft and mellow to any desirable degree. The means used were thin glass, mica gelatine, and transparent paper, and an arrangement for admitting light perpendicular to the surface of the negative, by placing it at the bottom of a box of proper depth, so that the light should not be permitted to act except directly from the front.

The idea of photographing disputed or questioned handwriting as an aid to its identification and authorship was brought up by myself, in 1856 or 1857, in the case of an anonymous communication to the Ledger newspaper, shown to me by Mr. J. M. Barnard, the proprietor. Photographs soon came to be used in the courts of Massachusetts, by my introduction, upon questioned signatures and writings, for the purpose of enlarging and making plainer simulated writing of any kind, as well as genuine business papers, and of bringing into convenient juxtaposition the standards and the questioned. The number of different papers presented to me amounts to hundreds in two or three years, and the sums involved or connected therewith to hundreds of thousands; and in a single case, “The Howland Will,” amounted to more than two and a half millions of dollars. Besides civil questions and suits, very important criminal cases often depend on questioned writings, anonymous letters, &c. The larger part of my time for some years past has been taken up in this business. A discourse upon this branch alone might be written, but for the present,
want of time forbids only this reference. I am not prepared to rehearse, or even to name
all the various applications and uses of photography. It is applied now to illustrations of
morbid anatomy advantageously. Astronomical records are made by it with unparalleled
rapidity and exactness.

Views from the caverns of the earth, and from the depths of the waters, and from the
heavens above, are placed before us. The wonders of nature, as exhibited in the snow clad
summits of the loftiest mountains; the volcano, belching forth its masses of flame and
liquid fire, half enveloped in its ascending column of vapor, smoke, and ashes; the
majestic and foaming cataract, in its icy crystal robes of winter, dazzling to blindness by
its more than diamond brilliancy, or softened by the hues of the summer foliage, pouring
forth in unceasing tones its grand, sublime, and still harmonious sounds, “the music of
the waterfall;” the giant trees of California, the lofty summits of the Sierra Nevada, or
Mount Diavolo; the rivers and harbors; the plains, and ravines, and mining grounds, with
their operations; the cities and villages, and the grand highways in various directions, and
the life-imbued car, almost in motion; the engine, held with a firm and steady hand, like a
war horse impatient for the blast of the bugle. But it is not worth while to particularize;
every conceivable view is presented to our vision with a reality and vividness almost
equal to nature itself. The treasures of the artistic world are laid upon our tables; ancient
and modern art we can study at our leisure; the fashions and patterns of the manufacturer,
of things namable and to be named, are thrust before us and surround us, by means of the
photographic art.

In thirty years, from a few crude experiments in the laboratory of a private chemist
and artist, it has extended its various applications and uses throughout the length and
breadth of every quarter of our globe. So manifold are its uses, so necessary to human
intelligence have become its historic recordings, that in almost all cities and towns and
villages may be found the displays and sample show-cases, with specimens in infinite
variety of size, and sitting, and character, as well as individual personages and stations,
from theatrical mimics, clowns, and stage-dancers, in their various costumes and postures
(or without costume), to the presidents and sovereigns of the republics and kingdoms and
empires of the world. The pointing index, the projecting sign-camera, or the attracting
banner, direct the passing public to the rooms and saloons, the parlors and studios of the
professional artisans and artists in photography; and few there are who do not possess
some sample of this pleasing and attractive art.

On the first announcement of the new discovery of the hitherto unknown properties of
light in connection with certain materials and chemicals, learned, and scientific, and
curious minds at once eagerly sought to realize, and comprehend, and test this new and
subtle and wonderful accession to science. The main facts were easily demonstrated, so
very easily, that experiments were tried and results produced and exhibited within the
reach of the common and uncultivated mind, and at a very trifling expense. No unusual
intellectual education or attainments were required to see that a new and vast field for
occupancy and improvement had been opened, and there was soon an almost impetuous
rush, either for the pleasure of increasing in knowledge or with the hope of speculative
gains. The savans and professors of known and familiar sciences sought its uses and aids
in their accustomed specialties. By its sister sciences its advent was welcomed by such
worthies as Herschel, and Brewster, and Talbot, and Morse, with other names of merit
and renown. Attached to astronomy, to chemistry, to optics, to medicine, to natural
history, and to the finer and higher arts of painting and sculpture.
In its early development and progress, it was seen that the science of optics and chemistry must be the principal sharers in aiding its operations and rendering it subservient to mankind in its finished and absolute perfection. Hardly have these sciences reached beyond the age of infancy, and most important additions have been made to each, in combination with photographic science. New properties of light have been discovered, and new and now indispensable chemicals also. Unspiring efforts have been made by names of merit, known and unknown to fame, and not less in amount of ingenuity and perseverance have been the contributions of those unknown to fame or fortune, and now, at this late day, by far the majority practicing photography as a profession, have little knowledge of its chemical or optical combinations or artistic requirements, nor are they disciplined in any principles of the fine arts, or in any mechanical employments whatever. Wisdom and prudence enter upon new and untied paths with cautious steps, eagerly observing every new sign and watchful of new developments, whilst youth, inexperience, and ignorance push impetuously forward, reckless of consequences, accomplishing sometimes accidental success, oftener doomed to inglorious defeat.

Into the practice of no other business or art was there ever such an absurd, blind, and pell-mell rush. From the accustomed labors of agriculture and the machine shop, from the factory and the counter, from the restaurant, the coach-box, and the forecastle, representatives have appeared to perform the work for which a life-apprenticeship could hardly be sufficient for a preparation for duties to be performed, of a character to deserve honorable mention. It may possibly be considered an extravagant estimate to place the number of persons employed, directly and indirectly, in photographing and manufacturing for the art, at fifty thousand in our country, but, in my own mind, it is within rather than beyond reasonable limits. Allow one in ten of this number to be in actual use of the camera and pencils, or brushes, and we have five thousand professional artists in picture-making and portraiture. Upon these devolve the responsibility of the design, and character, and finish of the picture. Mechanical manipulations, not more difficult of acquirement than in many other arts, attend upon this, and must be at the time performed by the artist photographer. For his apparatus and materials he is dependent upon those who have by life-long efforts, with genius, ability, and zeal, perfected themselves in the science of optics and chemistry, and the manufacture of lenses and chemicals. Excellence in these sciences has been attained from the experience and knowledge of former masters and from successive exertions in one progressive line, building as it were upon foundations previously properly and securely laid. Such must be placed high in the order of mental culture and knowledge. In certain specialties they are accounted geniuses of distinguished merits, and the enlightened would accord to them deserved and lasting honor. So does it to any who worthily search for and discover the truths of science, for science is truth.

But the artist, even in photography, must go beyond discovery and the knowledge of facts; he must create and invent truths and produce new developments of facts. I would have him an artist in the highest and truest sense applicable to the production of views or pictures of any and every kind, or to statues and forms in nature, universally. I would have him able to wield at pleasure the power of drawing nature in all her forms, as represented to vision, with lights and shadows, and colors and forms, in all of nature’s changes. I would have him as familiar as with his alphabet of letters. He should not only be familiar with nature and her philosophy, but he should be informed as to the principles which govern or influence human actions, and the causes which affect and mark human character. History and poetry should be to him mere pastime; observation of nature, cause
and effect, should be his employment. Familiar with all that has been done, with a genius to comprehend and estimate excellencies and defects, he will bend his energies to rival the one while at the same time he discards the other. Thus he will save and have time for the application and use of the true principles of art, which otherwise would require to be devoted to laborious and often unsuccessful experiments. This truth is not believed, or, if admitted, is not realized; yet it is truth still, that there is no high, easy, unobstructed road to knowledge, but the same long, steep, and toilsome path which has ever led and is still ever to lead to the treasuries of learning and wisdom. Golden fortunes may be inherited or acquired by a chance speculation, a mine of the precious metals may be discovered by diligent search, or accidentally opened by pulling a bush from the mountainside, but no stock of mental culture, in any particular or in general science, was ever acquired but by dropping, hour by hour and day by day, the pence of truth into our own memories and knowledge-boxes, to be cherished and guarded by our own constant and untiring watchfulness and care; and if thus we accumulate principal continually, interest will increase in a corresponding ratio, and our savings-bank, yielding four per cent at first, will in time return its six and ten, and afterwards an hundredfold.

We appreciate the perfection of the lenses with which we make the images of nature or art in our cameras; the perfection in the manufacture of our chemicals, glass, and paper; the variety and beauty in the style of our mountings and frames; but that which is necessary and requisite to fit one for the disposition of light and shade, the arrangement of the sitter, and accessories for the design and composition of the picture, is of a far higher order in the scale of qualifications, demands more observation and comprehensive knowledge, a greater acquaintance with mind in its connection with matter, a more ready and inventive genius, and greater capacity for concentrated thought and effort with prompt accompaniment in action. What is to be done is obliged to be done quickly. The whole character of the sitter is to be read at first sight; the whole likeness, as it shall appear when finished, is to be seen at first, in each and all its details, and in their unity and combinations. Natural and accidental defects are to be separated from natural and possible perfections; these latter to obliterate or hide the former. Nature is not all to be represented as it is, but as it ought to be, and might possibly have been; and it is required of and should be the aim of the artist-photographer to produce in the likeness the best possible character and finest expression of which that particular face or figure could ever have been capable. But in the result there is to be no departure from truth in the delineation and representation of beauty, and expression, and character.

But it may be asked whether the standard for the qualifications of the artist in photography is to be considered equal to that for painting and sculpture? If the aim and the purpose be the highest point of human perfection, in either art, then, I repeat, that as great as may be estimated the necessary qualifications and intellectual discipline and natural talents and genius for the painter and sculptor, precisely as much would I require for the artist in photography. The mere manipulations, the handling of brush or chisel, is as mechanical and in no respect beyond adjusting the camera or retouching correctly. The mind must express the value and mark and impress resemblances and differences. It must be instructed and directed by impressions, at the time, emanating from the subject itself.

Photographs possessing all desirable points are as scarce and valuable as the gems of India or Brazil, and the thousands of multiplied copies of the one are as common and worthless as the counterfeit glass imitations of the other. The demand for this class of photographs increases with the facilities for rapid execution and diminished value and cost. Whilst there exists this demand for pictures of a quality scarcely worthy of the
name, we will not find fault with those who stand ready to supply that demand. The taste of the public is to be formed and educated before work of a higher and more meritorious character is required; and permit me to say that, in our own country, no means will be more likely to accomplish so much towards that desirable end, directly and indirectly, as the exhibitions and meetings of this Association—directly, by raising the standard by which photographers are to estimate their own abilities and productions; indirectly, by the effect of the exhibition, in training the public eye to appreciate the differences between inferior and superior pictures.

In addressing you, at this time, do not understand me as attempting to discourage any who may have entered upon the business of photographing, or of holding up before you any impracticable theory of unattainable perfection. I would impress upon you the necessity of the most constant and unremitting attention to Nature, her changes, her variations, her moods, and her principles and productions. I suppose the picture-maker to be endowed with genius for and a mind devoted to art; to such a one no scene can be vacant or uninteresting. He will see in every place something for observation and investigation, from the simplest to the most imposing and sublime—all the actions and the varied expressions of man, under all influences; the characteristic forms, lines, and effects of health, age, condition; of beauty and deformity, he will regard with all scrutiny; all varieties of country; all species of animals, under all circumstances of repose or excitement; all of the earth below, all of the heavens above. This is his discipline of mind and vision, with fatigue and trouble at first, to be rewarded afterwards with enlarged powers and higher views, until another sense seems to have been added to his faculties, unfelt and unknown to the uninitiated. The artist is conscious of something besides the mere physical, in every object in nature. He feels its expression, he sympathizes with its character, he is impressed with its language; his heart, mind, and soul are stirred in its contemplation. It is the life, the feeling, the mind, the soul of the subject itself. Nature is the creation of infinite knowledge and wisdom, and it is hardly permitted to humanity to even faintly express nature by a copy.

With infinite perfection for our study, and observation, and models, let it be our ambition to attain to the highest point of human perfection and knowledge. The temple of knowledge may seem an imposing structure, but it is not too vast or grand for even our limited capacities. Time and opportunity are afforded us for all the exertions requisite for its construction. Upon its pinnacle we may erect our statue of fame if we do no less than is possible. I do not say to any one connected with the photographic art that you had better change your business and devote your time to another occupation; let it be admitted that you have chosen for yourselves that profession for which your education and genius best fits you; that path which good judgment and circumstances have opened before you. Having entered upon it, remove by industry and energy every obstruction you may encounter, and if perchance some formidable barrier presents itself, retreat but to choose a new position and to push on with renewed effort towards the desired goal with the least possible delay and the least possible change of direction.

Observation is the locomotive to be attached to the train of thought and engineered under your own conductorship; the power which turns the revolving wheels must be created by fuel from your own stores; your freight is to be truth, and knowledge, and wisdom, in all their purity, from the overflowing treasuries of the infinite Creator of Nature. For your harvesting he has sown with a lavishing hand. But not all is gold that glistens; truth lies at the bottom of the well, whilst straws float on the surface. For the truth we are to dig as for hidden treasures—truth, so rare, so often counterfeited or
disguised by the glittering tinsel of falsehood, so often mixed with error—truth always withstanding assaults, defending itself, now here, now there; almost overwhelmed by the dust and rubbish of delusion or the blatant effrontery of impudence, empiricism, and quackery. The question, what is truth? began to be asked more than eighteen hundred years ago, and will continue to be asked as long as human nature exists.

I trust that it will not be considered inappropriate that I have chosen to occupy the time allotted to this address in endeavoring to impress upon you the necessity of that general education which can only be acquired by persevering study, to absolutely fit you for the profession which you have chosen, or in which you find yourself engaged. I would have you respected, and worthy, and honored occupants of your studios; yourselves a grace and adornment to Nature, in her picturesque and poetical beauty, which, in your works, shall be spread over their walls and abound within their domain.

How proper the name given to designate the artist’s room, “studio,” or study! Had I, at the beginning of my remarks, quoted from Scripture, in connected, though not precisely successive words, found in the eleventh verse of the fourth chapter of the first of Thessalonians, “study”—“to do your own business,” it would have comprehended all I have said, and all I can say; and I will close by reversing the order of text and discourse—a text which should be photographed upon every unoccupied blank within the scope of our vision, which should be impressed in plain and prominent characters upon every piece of work upon which we labor, which should ring as a perpetual chorus in our ears, and haunt our sleeping and waking dreams—“Study”—“to do your own business.”

* This address, as will be seen, was delivered over a year ago. It was ordered by the Association to be printed, but, for reasons explained by the author, a copy was not furnished the Secretary until at the last meeting in Philadelphia. We now give it place at the earliest opportunity in our power.—Ed. P. P.

[End of text.]