

DEVELOPMENT OF ARTISTIC PHOTOGRAPHY

BY KATHRYN RUCKER

THAT true artistic expression may be rendered by means of the camera is verified and demonstrated by several exponents of secession photography in Los Angeles. Foremost among these is Hana Robison, studio 801 Y. W. C. A. building, a woman with wonderful appreciation of the possibilities of her craft; with a keen insight into human nature which enables her to bring out the best, to draw forth the very soul of her sitters and portray their most subtle qualities, even as the painter with his brush might achieve. She inspires them, as it were, for the moment, that she may register that expression of their highest and noblest self. She delights in that dim and illusive effect which increases the charm of that mysterious soul-quality which her portraits possess. Her perfect understanding of the value and effect of light and shade enables her to produce Rembrandt-like pictures which appeal to all lovers of that master.

"There is a fascination about the camera that leads one who uses it rightly on through unknown paths to ever fresh discovery—and those who have learned to use it rightly are using

it now as the painter uses his colors, or the sculptor his clay, to express not only what they see but the way it looks to them at the inspirational moment." Mrs. Robison's first work was with a kodak, and, like many another artist, discovered herself without knowing why or how; expression became a necessity, and subsequently photography a profession. She has shown her work at international exhibitions, and received a medal for its merits from the Birmingham (England) Society of Photographers and also at several other exhibitions, including the Royal Photographers' society of London. Her portraits of children are a delight and have that spontaneity and freshness which belong to unconscious childhood, showing that the lady behind the camera knew how to win their confidence and get that happy naturalness otherwise impossible.

Another form of expression in which this artist's powers are best exemplified is in draped figure studies. Their pose is always easy and graceful, and something classic in their feeling and beauty, a beauty that the artist sees and understands, and through her ability to properly present that perhaps almost phantom phase to her instrument, perpetuates.



PHOTOGRAPHIC ART STUDY MRS. HANA ROBISON



GIRL AND VASE MRS. HANA ROBISON

BY J. S. ZERBE

THERE is a key to every secret stored in nature's great warehouse. It is not a complicated one, containing a multiplicity of wards and peculiar angles and recesses. It is the very simplicity in most of the discoveries which long served as a bar to discovery in many of the arts. So extremely simple have been some of the keys that discoveries have depended on accidents. Occasionally they have been deliberately sought for by persistency and energy, and oftentimes by theorizing. Science rarely aids inventions. Invention always precedes science. Thus, science could not suggest how it would be possible for steam to force water into a boiler against its own pressure; but the injector does this. If prior to 1876 it had been suggested that a sonorous vibration could be converted into an electrical pulsation and transformed back again to a sonorous vibration, science would have proclaimed it impossible; but the telephone does it. Invention shows how things are done, and science afterward explains the phenomena and formulates theories and laws which become serviceable to others in the arts.

But let us see how exceedingly simple, on examination, are some of the great discoveries of man.

The telegraph is nothing but a magnet at each end of a wire, with a lever for an armature, which swings back and forward as the circuit is opened or closed and the current passes through the magnet so that the impulse on the lever, or armature, is synchronous at each end of the wire or at intermediate points.

The telephone has merely a disk close to, but not touching, the end of a magnet. The sonorous vibration of the voice vibrates the diaphragm, and as this diaphragm is in the magnetic field of the magnet it varies the pressure, so called, causing the diaphragm at the other end of the wire to vibrate in unison and give out the same sound originally imparted to the other diaphragm.

The transmitter is merely a sensitized instrument. It depends solely on the principle of light contact points in an electric circuit, whereby the vibrations of the voice are augmented.

The phonograph is not an electrical instrument. It has a diaphragm provided centrally with a blunt pin or stylus. To make the record some soft or plastic material, like wax or tinfoil, is caused to travel along at right angles to the point of the stylus, and close enough to it, so that the vibration of the diaphragm produces a line of in-

dentations of greater or less amplitude. When this line of indentations is again presented to the stylus the diaphragm vibrates and gives forth the sounds originally imparted to it when it made the indentations.

Wireless telegraphy depends for its action on what is called induction—that is, the capacity of a wire, carrying a current, to impart a current to a parallel wire. This impulse will extend laterally through a space equal to the length of the wire imparting the circuit. For convenience these wires are coiled. The great discovery has been to find a mechanism sensitive enough to detect the induction waves. The instrument for this purpose is called a coherer, in which small particles of carbon cohere or fall apart during the electrical impulses.

The printing telegraph requires the synchronous turning of two wheels, one at each end of a wire. Originally this was done by clock work, but without success, commercially, for the reason that a pendulum does not beat with the same speed at the equator as at different altitudes, and temperature also affects the length of the pendulum. The solution was found by synchronously moving the wheels by the vibrations of a tuning fork.

The electric motor depends for its

action on the principle that likes repel and unlikes attract. The commutator so arranges the poles that at the proper points, in the revolution of the armature, the poles are always presented to each other in such a way that as they approach each other they are opposites, and thus attract, and as they recede from each other they repel. A dynamo is exactly the same except that the commutator reverses the operation and makes the poles alike as they approach each other and unlike as they recede.

Steel is simply iron to which has been added a small per cent of carbon. Quinine is efficient in its natural state, but it has been made infinitely more effectual by the breaking up or changing of the molecules with acids. Sulphate of quinine is made by the use of sulphuric acid as a solvent.

Explosions depend on oxygen. Oxygen does not burn, but in order to burn any fuel a certain amount of oxygen must be present to support combustion. Thus, the most inflammable gas or liquid will not burn or explode unless oxygenized. Explosives are made by using a sufficient amount of oxygen in a concentrated form, which is added to the fuel, so that when the fuel is ignited there is sufficient oxygen present to support combustion, hence the rapid explosion which follows.