KODAK PARK

IN

War Time
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Published by the
EASTMAN KODAK COMPANY, Rochester, N. Y.
For the Soldiers who are Training at the
United States School of Aerial Photography
Officers at United States School of Aerial Photography
To the Soldier Photographer

AFTER the soldier photographer finishes his course in the United States School of Aerial Photography and becomes identified with the more serious aspects of the great war, he will want something that will remind him of his training days. A picture story, for instance, of the officers, instructors and school and neighborhood will be of particular interest. Something about the photographic plant in which the school is located will also be treasured. The Eastman Kodak Company, therefore, offers this little book about the school and the Kodak Park Works, and gladly dedicates it to the soldier photographer who soon will be carrying on the fight for Freedom and Democracy.
In the above illustration are shown the main entrance drive and a few of the buildings at Kodak Park. There are one hundred buildings with an aggregate floor space of sixty-three acres. The length of one of the largest of these buildings is seven hundred and forty feet. The employees at the Kodak Park Works number over fifty-five hundred, one-third of whom are women. The principal products of the plant are camera, motion-picture and other types of photographic film, more than one hundred and fifty brands of photographic paper and photographic dry plates.
SIXTEEN of the two hundred and twenty-five acres that make up Kodak Park are laid out in trees, shrubs, flowers and lawns. Vine-clad buildings help to carry out the park-like aspect of the place, the usual smoke-dimmed atmosphere of a large industrial plant being entirely absent. The Kodak Park Works is the largest of five plants owned by the Eastman Kodak Company in Rochester, the other four (the Camera Works, Century Works, Premo Works, and Hawkeye Works) being devoted to the manufacture of cameras and auxiliary apparatus.
THIS is the building in which the United States School of Aerial Photography is quartered. It is known as the baryta building, and is one of the largest buildings in the plant, being five hundred and sixty feet long by one hundred and fifty feet wide and five stories high and comprising nine acres of floor space. Eighteen thousand cubic yards of concrete, fifteen hundred tons of reinforcing steel and one million feet of lumber were required to build it.
An idea of the size of the building can be obtained from the above picture which shows one floor unfinished. It is because of the unusual size of this one building that it has been an easy task to provide dormitories, laboratory space, lecture rooms and offices on a single floor for the six hundred men attending the school at one time.
THIS picture shows part of the direct-current switch-board which is 41 feet long. This large board is supplied by five generators, two of 500 kilowatts rating and three of 1000 kilowatts rating (total rating 4000 kilowatts). There is also an alternating-current board with a total rating of 3000 kilowatts. A total of 2150 motors (ranging in size from one-twelfth to 150 horsepower) are required to operate the machinery in the Kodak Park plant. The powerhouse contains twenty-two boilers with a rated capacity of 7800 horsepower and with an actual capacity of 8500 horsepower. About 350 tons of coal per day are required to operate the plant.
UNIFORMITY of product is highly essential in all sensitized photographic materials. It means that the same results can be obtained with a certain kind of plate or film at one time as at another when exposed under similar conditions. A steady temperature is required in manufacturing sensitized goods to obtain this uniformity of product and for the purpose use is made of six ammonia compression ice making and refrigerating machines with a total capacity of 2620 tons and twelve ammonia absorption refrigerating machines with a capacity of 1700 tons, making a total of 4320 tons. This is equal to the work done by melting 4320 tons of ice (157 car-loads) in twenty-four hours. The above illustration shows a 600-ton refrigerating machine on the left and a 400-ton machine on the right.
PAPER boxes and cartons by the tens of thousands are required for packing plates, hand cameras and other goods turned out by the Eastman Kodak Company. A distinct department which has all the ear-marks of a separate manufacturing establishment and is in fact a large box-making factory makes these boxes, part of which is shown in the above illustration. To facilitate the operations plate boxes are run from machines on long conveyors as shown, to girls who perform the finishing operations. The capacity of this box plant is from 40,000 to 50,000 complete boxes per day.
A PRIVATE water supply system furnishes water from Lake Ontario to the plant, a distance of six miles. The end of the 42-inch intake pipe is a mile and a half from shore at a depth of 50 feet. A pumping station on the lake shore pumps the water through a 24-inch pipe line to a 5,000,000 gallon reservoir at Kodak Park. This system has a capacity of 12,000,000 gallons daily, sufficient to supply a city with a population of 150,000.
A SPECIAL building is provided for lunch facilities. One dining-room is for the women and one for the men (shown above). Provision is made for serving two thousand seven hundred employes at one time with food at cost prices. The soldiers also eat all their meals in this building. The equipment of the lunch room is much the same as that furnished in the quick-lunch rooms of a large city. The employes pass by a serving counter one behind the other and select what they want which they carry to the tables shown.
NO story of Kodak Park would be complete without something about the Kodak Research Laboratory. This laboratory should be of particular interest to soldiers attending the United States School of Aerial Photography not only because many men from the research staff are included among the civilian instructors in the school, but also because many of the problems of aerial photography are being studied and solved in it. In the above illustration is shown part of the projection room.
Men of U. S. School of Aerial Photography on Parade Ground in Front of Barracks at Kodak Park
ONE of the livest organizations at Kodak Park is the Fire Department shown above which consists of one hundred and sixty members. The fire equipment consists of three hose carts, a hook-and-ladder truck, salvage wagon, two chemical wagons, a pulmotor, Draeger helmets and diving suits. The organization is kept at a high efficiency by means of frequent drills. Each department of the works has its own volunteer fire company, the duties of which are to see that fire extinguishers are handled properly and that employees leave the building promptly in case of fire.
A LARGE photographic library is maintained in the Research Laboratory which is in charge of a trained librarian. Practically every important photographic work in English as well as other languages is in this library. A large number of books and magazines on allied subjects is also included. The number of volumes in the library is six thousand and over two hundred magazines printed in ten different languages are subscribed for. This library is available for use by any of the soldier photographers attending the United States School of Aerial Photography.
During the summer, concerts by a band made up entirely of Eastman employes are given twice a week, and that they are appreciated is well evidenced by the crowd shown in the picture on the Kodak Park lawns. In the winter the band plays once a week in the assembly hall.
A LARGE assembly room at the top of the employees' dining-hall has been provided for musical entertainments, smoking concerts, dances, basketball and indoor baseball. This hall is also available for soldiers attending the United States School of Aerial Photography for any of their social activities.
In the above illustration are shown two interesting machines which take the flat paper, previously printed and cut to proper size and form and glue it to produce the familiar cartons in which all Kodak roll film is packed. The entire operation of forming and gluing the carton is performed automatically. One of the machines shown above is designed to turn out 13,000 to 15,000 cartons a day and to produce the number of cartons required some twelve carton-making machines are necessary.
THE thin transparent backing for all photographic film is made from cotton, the cotton first being thoroughly cleansed and then treated with nitric and sulphuric acids in rotating machines of the type shown herewith in order to make it soluble in wood alcohol. When the acid treatment reaches the exact stage required the acid must be expelled instantly and the cotton thrown into water to prevent its burning up. After washing and drying the cotton is dissolved and becomes a honey-like substance which in Kodak Park parlance is called dope. The dope is spread in thin layers on highly polished wheels which form part of immense machines several stories high weighing approximately 150 tons and when dried forms the familiar transparent film backing on which the sensitive material is coated. The accuracy of these machines is such that in a roll of film as it comes from the machine 3½ feet wide by 2,000 feet long the variation in thickness is not more than one-quarter of a thousandth of an inch from end to end.
AFTER the cotton has been treated with nitric and sulphuric acids to render it soluble in organic solvents it is necessary to wash it very thoroughly to remove all traces of acids. It is first rinsed in large tanks as shown above and then is again passed into centrifugals where water is played on it; next, it is conveyed to other water tanks. Finally the excess water is removed from the cotton when it is ready to be turned into dope.
MORE than two tons of silver are used every week in the Kodak Park Works. This silver is the purest obtainable. The bullion comes in ingots which are placed in crocks containing nitric acid. The silver dissolves and the solution is then evaporated to white crystals of silver nitrate. The silver nitrate is subsequently mixed with potassium bromide, potassium iodide or potassium chloride dissolved in a solution of gelatine to make the "emulsions" which form the light sensitive coatings when applied to photographic film, plates and paper.
Silver-Nitrate Crystals in Drying Closets

Motion-Picture-Film Shipping Room
School Finishing Room

School Developing Room
School Lecture Room

Interior Y. M. C. A.-K. of C. Hut
Military Instructors with Major Barnes, Commandant, in Center
Civilian Instructors of Eastman Kodak Company Staff