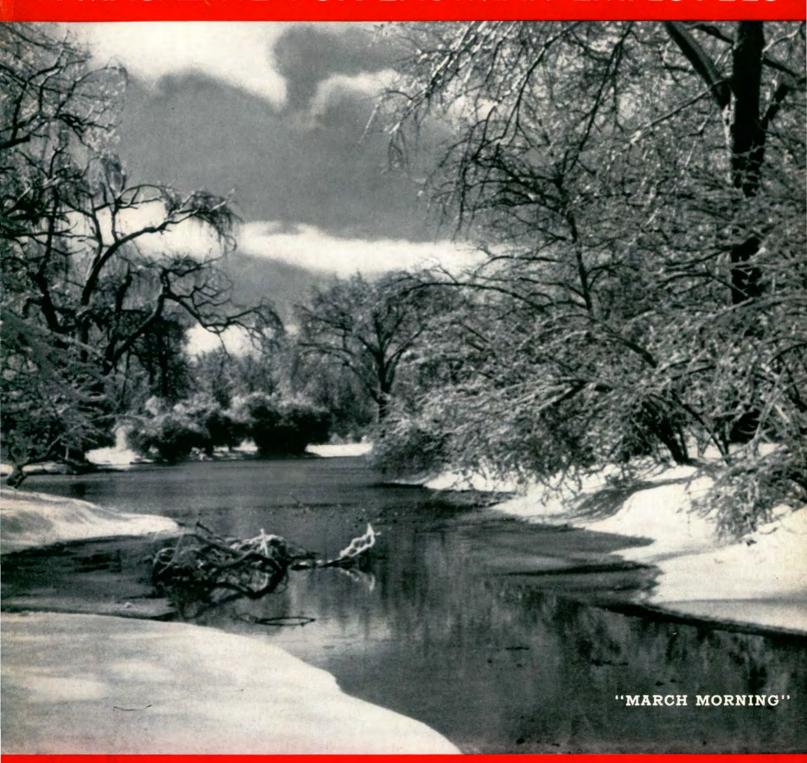
## KODAK

A MAGAZINE FOR EASTMAN EMPLOYEES





"MIGHT AFLOAT": the U.S.S. "Chicago" off the California coast during maneuvers. This picture and those on page 5 are reproduced by the kind permission of the United States Navy

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### KODAK

Volume 20 MARCH 1941 Number 3

### They Tell "Blitz" Experiences

Their Experiences Under Fire In England Are Narrated For Kodak by Three Kodak People

Here are the personal experiences of three Kodak Limited employees in the Blitzkrieg, as told by themselves and passed for publication by the British Press & Censorship Bureau.

They are typical of the daily and nightly adventures of large numbers of British men and women—and children. Typical, too, of the calmness, good humor, and quiet courage displayed by people up and down the land who, finding themselves suddenly in the front line of battle, carry on with their jobs and are not dismayed.

It was a lovely Saturday afternoon, and I was having a rest, not knowing whether I was going to be kept awake all night with gunfire. Then the sirens went. We had never taken much notice of daytime alerts, so I was not very eager to go down the shelter, but I thought I had better go.

I went downstairs, and as I reached the garden there was a most deafening noise of planes. I thought, "Oh, they are ours," and made my way very calmly to the shelter. I had just arrived at the entrance when—well, I didn't walk in, I was blown in. They were not "ours."

A bomb had dropped in front of the house. I lay on the floor of the dugout and lost count of the bombs that dropped. Dirt came down on us, and as I thought, half the house fell on the top of the dugout (but it was the tarmac from the road). After a time—it seemed ages to me—everything was quiet, so I looked out, but I couldn't see a thing for dust, dirt, and fire.

I thought the house was on fire so I scrambled out and went to see the damage. The front was blasted in, and fire came from the gas main. To my amazement, lying in the gutter were a man and women and two children (the children thought it was a huge joke). They had been blown there with the shelter from the next garden. We had hardly time to get back when the planes were zooming and machine-gunning and every moment we thought one would come down.

When I went into the house eventually, there was a piece of gas main in the middle of the bed where I had been lying.

After everything died down, all the women in the neighborhood seemed to have the same idea: to get away before nightfall.

My neighbor and I decided to go together and we just put our coats on and made our way to the station. When we arrived, we were told to go to another line; and then the night siren went. We ran as long as we could, until the gunfire was so intense that we had to go in a Public Shelter, where we stayed the night, making our way home again in the morning.

It may seem strange, but we are becoming quite used to this life under fire, and are looking forward to the day (not far distant, we hope) when all these adventures are memories to be talked about in peaceful times.

### He Got the Pictures

RECENTLY, I had to report to a town in the north of England in order to do an urgent photographic job. It was arranged that I should travel up one morning, commence photographing a day shift, carry on with the night shift and finally finish the day shift next morning, returning to London in the afternoon.

The night before I was to travel, I called on a friend to let him know



Employees and their families and friends who live near the Harrow Works are able to sleep in safety in the Works air-raid shelters. Here, a group enjoys a game before retiring



Searching the skies from a Kodak Limited rooftop: the "roof spotter" is trained to identify enemy aircraft quickly, and to calculate whether or not danger to his district is imminent

I would be away from town for a day or so. I suggested we should both sleep at my house. On arriving at the top of the road, I was dismayed to find the pavement and roadway covered with glass, bricks and rubble, the familiar signs of recent bombing.

Carrying on further, I was confronted by my own street door, looking very sorry for itself, hanging on by one screw. All windows and frames were out and one or two bricks missing. Realizing that there was a strenuous day ahead for me, I decided to take a cursory glance around the house and then retire to the shelter. The scene which met my eyes was not too good. The furniture was covered with dirt and glass, the ceiling was cracked, and there was a large hole in one upstairs bedroom.

We retired to the shelter around midnight and I was hoping that I would soon get to sleep when a loud voice outside informed us that there was a delayed-action bomb near by. Hurriedly "dressing" (this consisted of putting on trousers, scarf, and



In much-bombed London: this photograph shows some employees at Kodak Limited headquarters during an "alert." The shelter is a specially reinforced room in the basement of head office

raincoat), we dashed into the street where, after a brief discussion, we decided to return to my friend's house and sleep there. We finally climbed into bed at 1:30 A.M. with the alarm set at 5:30 A.M. so that I should be up early to catch my train. After a very hasty breakfast, I hunted through my friend's wardrobe and finally managed to find some togs which fitted me—in parts. These were hurriedly thrown into a case and I dashed out.

In spite of this stormy prelude, I am pleased to say that the whole job—a matter of 650 photographs—was completed by 11:30 the next morning.

### In London

I LIVED IN A BASEMENT FLAT in the center of London, where the bombing was particularly bad. I had made one of my rooms into an air-raid shelter and all the people came down when the siren went. One night we had managed to drop off to sleep in a slight lull between the barrage and the bombs, when suddenly there was a terrific crash as though the whole house was collapsing. At the same time all the lights went out.

When we had partially recovered from the shock, we started to hunt around for candles, and for brandy as one or two of the people were not feeling too good. A few minutes later there was a second appalling crash and we could hear masonry falling in the road and people screaming. Then someone said it sounded as if it were raining, but when I went to the back door, it was quite dry; in fact, the whole garden was full of smoke and dust from the falling buildings. Of course, in the dark we could not see exactly what had happened.

A warden came shouting down the street, telling everyone to get out of the basements as the water main had burst. We crowded upstairs, and I gathered up a ready-packed suitcase, coat, etc. Then we went to the ground floor, only to discover that all the windows had done, so we had to sit in complete darkness. We went to the space where the front door had been, to see if we could help in any way. To our horror the houses opposite had almost disappeared down a huge crater in the center of the road, and

(Continued on page 14)

K O D A K Page 3

### Keeping the Busy City Shipshape

Upkeep and Improvement Work Goes Forward Continually Both Above and Below Street Level

John: Meet me at  $43^{\circ} 90' 38.970''$  N,  $77^{\circ} 37' 11.818''$  W. Mary.

If John plots his course precisely, he'll meet his geodetic-minded Mary at the Kodak Office, as a check—if you're skeptical—with the maps and survey section of the division of engineering of the Department of Public Works will speedily verify.

Yes, give them your latitude and longitude and they'll tell you your house number, or give them your house number and they'll tell you where you are, latitudinally and longitudinally speaking. The answer may be a mere scrap of interesting but useless information to you, but it's mighty important data for the engineers of the "DPW," whose intimate knowledge of the city's 34.75 square miles—both above and below ground—is far beyond the mere layman's ken.

The Department of Public Works deals, generally speaking, with the upkeep and improvement of the city's physical equipment, its 526 miles of streets, its sidewalks, its great water mains, its 641 miles of sewers, and its public buildings. A commissioner of public works, who is appointed by the city manager for an indefinite term, heads the department's three divisions: engineering; maintenance and operation; and water. The commissioner appoints the heads of these divisions, as well as the superintendent of the public cemetery.

### **Engineering Division**

A staff of 110 employees, including 28 engineers and 43 draftsmen, serves the division of engineering. Its activities come under five main headings: plans and surveys; supervision of construction projects; revision of the city's official maps; tests of materials purchased by the city; and photographic records.

To the division's two improvement sections falls the planning of projects that range from flood control to highway paving. One, in City Hall, handles surveys and designs; the other, in City Hall Annex, supervises



A giant sewer tunnel under way: adequate streets and sewers, sidewalks and water mains, are vital to the modern city. Projects such as this one are planned and supervised by the division of engineering

construction of WPA projects and handles general structural design. Drawings of improvement plans are filed and indexed, forming a quick source of information.

For assessment and other purposes, the physical layout of Rochester is depicted in minute detail by the maps and surveys section on a set of 1,431 survey maps, supplemented by 1,431 assessment maps, 40 district maps, and 35 land-value maps. Complete survey information, lot subdivisions, and up-to-the-minute information on property ownership are recorded on these maps. Rechecks are made constantly, deeds are scrutinized, death notices are reviewed, and maps are changed accordingly.

Performing a highly important task in the supervision of construction work and in the purchase of materials and supplies by the city is the engineering division's tests and materials section. Here, chemists, engineers, and physicists, equipped with apparatus ranging from delicate scales to giant machines that tear steel bars apart with nary a puff or pant, analyze the contents of the

city's enormous market basket, from soap to asphalt mixtures, to ensure that they meet quality standards. Here are prepared specifications for materials; and here, too, laboratory analyses are made to aid police work.

(Continued on page 14)



How strong is concrete? This test soon gives the answer to the tests and materials section of the division of engineering. Here, all materials purchased by the city and by the Board of Education are examined for quality



### **Navy Notes**

What with the 147th Anniversary of the establishment of the United States Navy occurring this month (see page 5), we've been taking a more than usual interest in matters nautical and noting, among other things, that:

The first steam man-of-war in any navy was the U.S.S. Demologos, invented by Robert Fulton and launched in 1815. That was the year, you'll remember, when Napoleon was defeated at Waterloo and sent to St. Helena.

The first transatlantic flight was made by the Navy in May, 1919, when the Scaplane NC4 flew from Newfoundland to Lisbon, Portugal, via the Azores.

United States battleships bear the names of states; cruisers, of large cities; aircraft carriers, of historic naval battles; aircraft tenders, of aviation pioneers; destroyers, transports, submarine tenders, and survey ships, of famous officers and men in the Navy and Marines; submarines, of fish; gunboats, of smaller cities. Submarine chasers carry the initials, "SC," and a number.

The oldest ship in the Navy, the U.S.S. Constellation, launched in 1797, is to be seen at Newport. "Old Ironsides," as the U.S.S. Constitution is popularly called, was launched that same year. Rated as a 44-gun vessel, she sported 52 in her heyday. She's been at the Boston Navy Yard since 1897. Both these venerable ships were put back on the Navy's "active" list last year.

### Golf Goes On

A GOLF CLUB near London now has a set of rules framed to meet current conditions:

"During gunfire or while bombs are falling," says one, "players may take cover without penalty for ceasing play."

But this rule would appear to be only for particular emergencies, for another permits "a player whose stroke is affected by the simultaneous explosion of a bomb or shell or by machine-gun fire" to play another ball from the same place. This procedure involves a penalty of one stroke.

Full provision is made for all possibilities. "The positions of known delayed-action bombs are marked by red flags placed at a reasonably, but not guaranteed, safe distance," while "a ball moved by enemy action may be replaced as near as possible to where it lay." And for this, no penalty is imposed.

### Manoeuvres

Accompanying "Guardians," the excellent sea study that was reproduced inside the front cover of February Kodak, was an entertaining piece of verse, written by the man who made the picture, J. C. A. Redhead, of Kodak Limited. An excellent and versatile cameraman, Mr. Redhead was invited to photograph the fleet during manoeuvres some seasons ago. He secured a fine picture "bag," and when he came ashore, he sat down and wrote:

A guest of His Majesty's Navy, that's what I had the pleasure to be;

They says to me, just step aboard sir, and we'll take you a trip on the sea.

When opportunity comes, I sez seize it (though I knew it meant dodging my work),

I accepted their kind invitation, and I jumped to it—jumped with a jerk.

They were kindness itself, and meant well sir, of that there's no shadow of doubt,

Like a doctor receiving his patient, in a 'ome what he never comes out.

They gave us all six meals a day sir, that is between breakfast and sup.

There were three that we used to put down sir, and the other three had to come up.

Tain't everyone gets such a chance sir, to see all the things what I did,

There were times that I saw just sweet no'fink, that is 'til they took off the lid.

We rolled and we pitched and we

tossed sir, I hung on with my hands and both feet,

I had thoughts of all things in creation, but of no'fink I wanted to eat.

When they ask have you been on manoeuvres, I turns and I sez with a laugh,

Have I blinkin' well been on manoeuvres, I should blinkin' well think so, not 'arf.

### Popular Film

"Booked solid through July" is the latest Rochester report on "Highlights and Shadows," the superb film portrayal of one of the world's most important arts and industries.

"Highlights and Shadows," to quote an official appraisal, "traces the steps by which man's efforts to transmit his ideas led to the perfecting and popularizing of photography. Brilliant cinematography, plus clear commentary, reveals the research and manufacturing facilities that both resulted from and contributed to this achievement.

"The photographic industry is utilized as an outstanding example of the effect of the physical sciences and the modern machine on life today. Impressive examples show how photography, the most widely practiced of the arts, has also become one of the world's most vital methods of communication and education—a means to an integrated concept of world social conditions—the provider of a permanent record not only of individual lives but of our whole complex civilization."

Produced by Dr. James Sibley Watson, Jr., in co-operation with the Research Laboratories, and released nationally two years ago, "Highlights and Shadows" is packing in eager audiences in every part of the country as well as abroad. The United States attendance passed the million mark in June of last year.

Brilliantly dramatizing the story of photography, this unique film is being shown in this country by stores and dealers, camera clubs, schools and colleges, and by museums. K O D A K

### The Birth of the United States Navy

Our History as a Naval Power Dates from a Congressional Act Passed 147 Years Ago this Month

To observers capable of grasping the fundamental principles involved in that conflict, the American Revolution had certain basic lessons to offer. One of these was the utter necessity for naval support if land operations were to be completely successful. Soon after the Battle of Yorktown, Washington acknowledged this fact in a letter to Lafayette when he wrote that "no land force can act decisively unless it is accompanied by a maritime superiority."

But it must be remembered that the naval assistance to which Washington was so indebted did not come from the rebelling Colonies themselves. Indeed, we had no war fleet worthy of the name despite the importance which has been attached to the feats of John Paul Jones and American privateers.

So it is little wonder that, the war over, certain of our early statesmen pointed out the desperate need for an American navy. It was one thing, however, to understand the need for ships to protect our interests, and quite another thing to bring about their construction.

At that time, the greatest obstacle to the creation of a navy was the



One of America's first warships, and certainly the most famous, was the frigate "Constitution," better known as "Old Ironsides." Though our navy was then in its infancy, American seamanship had proved its worth



Target practice by our great battleships on the high seas symbolizes the power and preparedness of the American Navy. Never before has the security and welfare of our country rested so heavily upon these ships

powerlessness of the Continental Congress to raise money by taxation. The Colonies had jealously retained all fiscal powers when drawing up the Articles of Confederation. The Congress might recommend that they join in building a navy, but it had no power to tax them for the necessary appropriation.

This barrier to the creation of an American navy was swept away with the adoption of the Constitution of the United States. But an equally serious obstacle arose in the form of sectional jealousies and counter interests. The seaboard Colonies, drawing their living largely from maritime pursuits, were eager to see their interests protected by an adequate navy. But the inland and agricultural sections were just as determined to avoid the financial burdens of building and maintaining a navy which, in their opinion, could be of little use to them.

### Comes a Crisis

Conflicting sectional interests might have delayed the inauguration of a naval program for many years had not a situation arisen which revealed to the States their pitiful weakness as well as their inability to protect national interests and honor abroad.

This situation was provoked by the depredations of Barbary pirates upon our merchant ships. In 1785, several American vessels were captured and their crews either held for ransom or sold into slavery. These assaults continued without any reprisals by the powerless States until 1793, when a treaty was signed which called for payment of an enormous ransom and an annual tribute. The American emissaries who concluded these negotiations and the agents who delivered the annual tribute were treated by the Dev of Algiers with the greatest contempt.

National pride was grievously wounded. But out of this national humiliation was born an earnest unity within Congress, which had now learned by bitter experience the overpowering need for a navy. On March 11th, 1794, an act was passed calling for an appropriation to construct six frigates. This act, signed by President Washington on March 27th of that same year, marked the beginning of the United States Navy.

In 1802, a well-manned fleet of five vessels of war, which included three 38-gun frigates, was dispatched to the Mediterranean. There, under the command of Commodore Morris and, later, of Commodore Preble, they

(Continued on page 14)

### The E. & M. and Kodak Production

Engineering and Maintenance Department Designs Machines And Buildings for the Company

The Red Cross worker, knitting a sweater, plies her needles with rhythmic dexterity. . . The turret lathe fashions a rod of steel into tiny studs with rhythmic precision. . . . The freckle-faced boy works rapidly across the corn field with a rhythmic swinging of his hoe. . . .

The rhythmic making of things comes always from experience and planning and study—and nowhere is this more evident than in the operation of that complex machine, the industrial plant.

### The Plant's Job

You may never have thought of an industrial building as a machine. To be sure, it may have been designed with full regard to the comfort and convenience of the people who are to work in it—just as a home is planned with the well-being of its dwellers in mind. But the true purpose of the industrial plant is mainly functional—the efficient and rhythmic manufacture of some product or other.

It is only by considering the industrial plant as a machine that we can best understand the problems inherent in the design, construction, and equipment of a building in which things are to be made.

Indeed, these problems are so complex that an industrial organization requires the services of many experts when it builds a plant or even when it alters an existing one. It will want an architect and structural engineers to design the building. It must call into consultation with its operating staff electrical engineers, chemical engineers, mechanical engineers, power engineers, and others, to plan the layout of the services and machinery needed for production. It will want draftsmen to draw detailed plans for the builders. Machine designers and fabricators will be needed to provide the special manufacturing equipment.

### Special Needs

The production problems of the Eastman Kodak Company are unique. So, therefore, are its construction problems. The machine requirements of the photographic industry are unusual and exacting. Few other in-

dustries demand such exacting standards of cleanliness—cleanliness which must be incorporated in the very design of the buildings themselves. Vast amounts of air conditioning are needed. Tricky problems are involved in dealing with substances so chemically unstable as, for instance, light-sensitive emulsion.

### The E. & M.

These are only a few of the special problems encountered in the photographic industry—problems that can be handled properly only by engineers with years of experience in the photographic field. So the Company, years ago, established its own engineering organization to deal with the special problems of construction within its plants. The wisdom of this policy can be most fully appreciated when we observe how the Engineering and Maintenance Department operates.

The department is divided into various divisions and sections, each of which specializes in a definite field of engineering. Thus, there is a machine-design division, a section of equipment engineers, another of structural engineers, and a third of electrical engineers. There is also a division that handles the problems of power engineering. Working with all of these is a section of engineering draftsmen, who prepare the designs and plans.

These various units work more or less directly on orders coming from the different manufacturing departments of the Company. An order may call for an entire new building or merely for a simple alteration in some department. In any case, it is executed along well-defined lines of procedure.

### For Example

Let us suppose that the Chemical Plant at Kodak Park, in order to permit necessary expansion, requires a new building, fully equipped for operation. After due consideration of the nature and extent of the additional facilities needed, it sends an order to the Engineering and Maintenance Department, requesting a survey of the problem. The E. & M. assigns a co-ordinator to the job; and he consults with the department



Every new building at Kodak Park and other manufacturing divisions of the Company is the final expression of engineering research and planning. There are months of work for members of the Engineering and Maintenance Department before actual construction of a building begins



The engineering draftsmen work in close co-operation with the members of the engineering sections. It is their responsibility to lay out the many designs and plans which guide the Shop and Field Divisions in their work. In the E. & M. files are approximately 150,000 detailed drawings prepared by Kodak draftsmen

originating the order to determine the exact requirements. Then, when the essential features have been determined, the various engineering sections are called upon to work out the problems involved in their specific portions of the project.

The results are now combined in a preliminary plan, along with cost estimates and recommendations, and submitted to the Chemical Plant. If the plans and estimates are satisfactory, they form the basis of a request for an appropriation for the job. Throughout actual construction, constant co-ordination of the work of all the engineers ensures smoothness of operation.

### A Wide Field

But all orders coming to the Engineering and Maintenance Department are not concerned with new buildings. Operations at Kodak Park and in the Company's other plants call constantly for new developments and alterations in buildings, in machines, in departmental layouts, in service, such as power and air conditioning, and in many other things. Orders calling for engineering assistance on such jobs as these come into the E. & M. every day and are assigned to the section or sections best qualified to handle them.

Each order is followed by a survey—more or less detailed according to the requirements—preparation of plans, and an estimate of costs. If the

report of these preliminary investigations and recommendations is approved, the work is carried out by the Shops and Field Division to specifications furnished by the engineering sections. Maintenance and alteration projects on which engineering services are not required are carried out directly by the Shops and Field Division (see January Kodak).

### Data "On Tap"

The broad field covered by the Company's engineering activities can be appreciated when one looks over the department's seemingly endless files of records and drawings. These files are earefully indexed and cross-referenced so that the record of any job can be speedily consulted. The information available in the files is of special value when alterations or additions are projected, or when new but similar problems are encountered, since they eliminate the need for repeating investigations already made.

### Drawings, Too

Included in the files are approximately 150,000 detailed drawings, executed by the engineering draftsmen. Many of these drawings have been reproduced on Eastman Sensitized Cloth, from which blueprints are made. Some sixty thousand square feet of reproductions of these drawings, both blueprints and Photostats, are prepared and used each month by the department.

The work of the E. & M. is not confined to the engineering and maintenance problems arising at Kodak Park. Its services are in frequent demand in connection with projects of the Company's other plants and branches. Kodak plants overseas, too, utilize the services of this department just as they utilize the experience of Kodak Park's manufacturing departments. Indeed, the whole rhythmic flow of Eastman production owes much to the Engineering and Maintenance Department.



One of the engineering sections of the Engineering and Maintenance Department at Kodak Park. While each section specializes in a definite field, the services of all are co-ordinated and brought to bear upon large projects, such as a new building, thus ensuring smoothness of operation throughout the job

## HERAL E ROCHESTER

ROCHESTER, N. Y., SUNDAY, NOVEMBER 26, 1905.

3

# Camera City Men Who Made Rochester the

Photographed by DUDLEY HOYT































George Eastman,

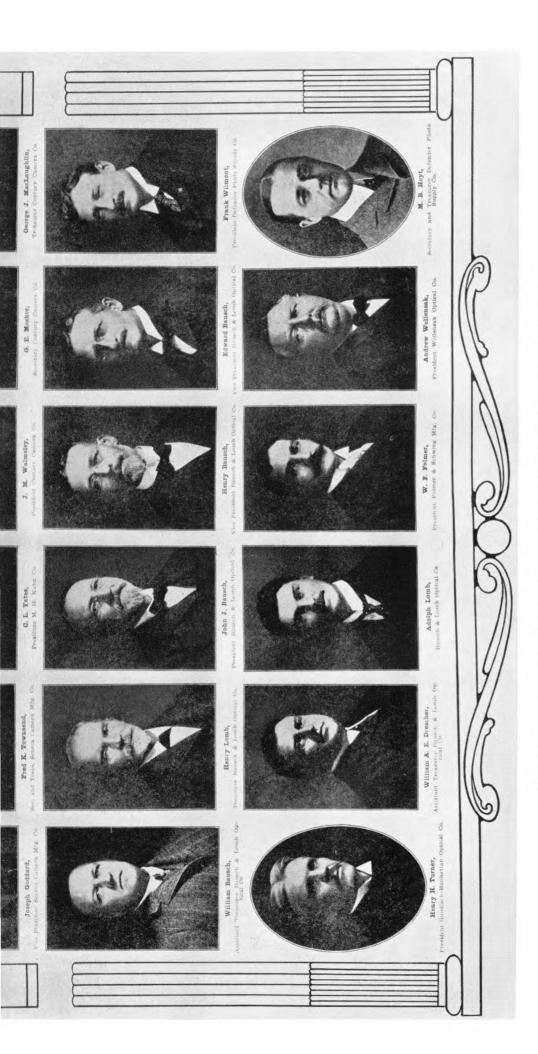












# Written at the Quarter-Century Mark

"There is one word common to every rongue," said a booklet that appeared about the same time as the portraits that are reproduced above from a newspaper sent to us by William J. Gerstner, a retired employee.

"It has penetrated to the uttermost part of the earth; and along with it has gone the fame of all Kodak products. For a quarter of a century, the Kodak Company has been turning out photographic staples. Within itself it has grown mightily. . . .

"The Park property consists of more than twenty-five acres on which are buildings . . . with a floor area of over ten acres. In thoroughness of equipment these works are no less remarkable than in extent. . . . In nearly every depart-

ment there is special machinery, designed and built on the premises. Nothing is lacking that can in any way contribute to the economical manufacture of perfect films and papers. . . .

"As a result of the steady growth of the business covering a period of twenty-five years, there has been an accumulation of something besides perfect facilities.

... One of the valued assets of the company today is the experience gained in the manufacture of sensitive photographic goods. ... But not only is there constant progress from within. Rochester is today the Mecca of the man with a photographic idea. . . . It is the inventive and progressive as well as the commercial center of the photographic world."

### THE EDITOR'S PAGE

### Honor to Kodak's President

The Civic Medal of Rochester for 1941 was awarded to Frank W. Lovejoy on February 19th, "for distinguished service in the field of industrial science," by the Rochester Museum of Arts and Sciences. Mayor Samuel B. Dicker made the medal presentation.

The citation for the award, read by James P. B. Duffy, vice-president of the Museum Commission, follows in part:

"You have been a just and prudent manager of a great industry affecting the livelihood of tens of thousands and giving pleasure and profit to many millions more, thereby ably carrying on the life work of George Eastman.

"Your firm has given the museums of the world and other institutions of record an accurate and reliable means of preserving the face of facts and the appearance of men and things."

### For Home Improvements

The following announcement, prepared by the Eastman Savings and Loan Association, should be of interest to employees who are planning to improve or modernize their homes but lack ready cash for the job:

### Whether It's to Be . . .

An extra room . . . new plumbing fixtures . . . a paint job . . . a porch . . . a garage . . . a new roof . . . or practically any other permanent improvement to your property. . . .

Why not get the money to pay for it through the convenient financing plan of the Eastman Savings and Loan Association?

Let the figures tell the story:

\$100 repayable in weekly installments of \$ .75

\$300 " " " " " \$2.25

\$500 " " " " " \$3.75

Note: These figures include both interest and principal payments. Repayments can also be made monthly if so desired.

If you wish to secure a modernization loan, or want further details of the plan, see a member of the Eastman Savings and Loan Association staff at the Kodak Office, 343 State Street.

### Nils Bouveng

NILS BOUVENG, for many years liaison officer between Kodak in Rochester and the associated companies in Europe, died in Stockholm, Sweden, on January 31st. A frequent visitor to Rochester—he crossed the Atlantic fifty times in the course of his duties—Mr. Bouveng made his last visit here in June, 1939.

Born in Stockholm in 1871, Mr. Bouveng was educated in Uppsala, Sweden. He came to the United States in the early '90's and was for some years in the photographic business in Rockford, Illinois. Returning to Sweden in 1899, he became a representative for Velox Paper and introduced that product throughout Europe. Later, he became associated with Hasselblads Fotografiska Aktiebolag, the firm that has been sole distributor of Eastman products in Sweden since 1904.

As a young man, Mr. Bouveng studied art for two years at the Royal Art Academy in Stockholm; and he was a talented painter and sculptor. He modeled a bronze bas-relief portrait of Mr. Eastman for the Eastman dental dispensary in Stockholm, in the founding of which he was instrumental. Copies of the portrait plaque hang in Kodak establishments in various parts of the world.

Mr. Bouveng is survived by his wife, the former Fannie Foster, of Rockford, by a daughter, Mrs. Florence Lamborn, and by two grandchildren, all of whom are in Stockholm.

### Accidents in 1940

ACCIDENTS, FIFTH MOST IMPORTANT CAUSE of death in the United States, took a toll of 96,500 lives last year, according to a recent report of the National Safety Council. Approximately 9,100,000 persons were injured during the twelve-month period.

Motor-vehicle accident fatalities were 34,000, or approximately 2,000 more than in 1939.

Occupational-accident deaths were 17,000, as opposed to 15,500 in 1939.

Home-accident fatalities were 32,500, an increase of approximately 500 over the 1939 figure.

Public-accident deaths not involving a motor vehicle numbered 15,500, which is the same as in 1939.

The 6 per cent increase in traffic deaths was accompanied by an inequal increase in travel, so that the death rate for each 100,000,000 vehicle-miles remained unchanged at the record low of .12, according to the council's report.

Similarly, in connection with the increase in occupational-accident deaths, a 6 per cent increase in employment should be taken into account.

Economic loss due to accidents last year is estimated at \$3,500,000,000, including medical expenses, property damage, lost wages, and overhead cost of insurance.

### Camera, Lights-and What Have You!

Well-Selected "Props" Increase The Eloquence of a Photograph

A BEACHCOMBER BEWAILS his lonely lot in sun-baked Pago Pago. . . .

From a Fifth Avenue double-decker, a wide-eyed girl gets her first glimpse of the towering Empire State Building. . . .

We react appropriately when such scenes as these unfold with superb realism on the silver screen. They are all the more realistic for the very fact that they were filmed, not in Pago Pago, or along Fifth Avenue, but within the confines of a Hollywood studio, where light and sound can be accurately controlled and every kind of weather and climate is "on tap."

No magic about it, either. With the appropriate background, good lighting, a camera (plus a portrait attachment if it can't be focused down to three feet or so), and some imagination, patience, and ingenuity, anyone can shoot an arctic scene in summer, for instance, or a tropical scene in winter—right in his own home.

To the commercial photographer, such shots are all in the day's work. How appropriate "props" add interest to a product picture, compelling our attention and telling a story vividly, is well exemplified in the Eastman Tropical Plates illustration at right. The setup for the picture is shown below. Here's how it was made by



This photograph shows the setup used by the photographer in making the interesting picture shown above



Judicious use of lighting and careful arranging would have yielded an interesting picture of the cartons alone, but the photographer had an idea that he put into practice with this result. Well-chosen "props" add much to the story-telling power of an indoor shot, commercial or amateur

John F. Collins, of the Advertising Department:

Mr. Collins fashioned the palm tree from a flexible desk lamp. Scotch tape wound around the lamp stem, and dusted with brown liner, white liner, and cheek rouge, gave a realistic trunk. Plasteline at the top held the palm leaves in place. Moss, obtained from a florist, made very effective grass. For the background, an enlargement of a cloud picture was used.

When the setup was complete, the tree stood 15 inches from the lens, the film boxes 21 inches from the lens, and the background about 36 inches from the lens. The 15-inch ship model—Mr. Collins is an ardent and skillful modelmaker—was placed 6 inches in front of the background.

Effect of sunlight and shadows on the boxes was achieved by use of a 1000-watt lamp and reflector about three feet above and slightly to left of the camera. Another light illuminated the sides of the boxes. An exposure of 25 seconds at f/45, with a wide-angle lens, was used.

### Bicycle Back

Although the automobile trade is booming, the bicycle is coming back fast. Census figures, recently released, put the number of bicycles manufactured in 1939 at 1,252,000. The highest recorded prior production was 1,182,700 in 1899. However, production in the years immediately preceding 1899 may have been greater.

### - POMM

### ACTIVITIES



KODAK OFFICE ITEMS: Jessie Natt and Walter Narog captured the prize and plaudits at the end of the Mixed-Pair Bridge Tournament, The Bridge Club is now engaged in five weeks of Open-Pair play for the President's Cup. . . . On Thursday evening, February 13th, Jan Struther, author of Mrs. Miniver, gave an informal talk in the auditorium. . . . The Opals were leading the Kodalures by a slim margin in the American Bowling League as we went to press. In the National League, the Kodalaks held a three-game lead over the second-place Kodachromes. The Girls' Bowling League presented a torrid neck-and-neck race, too, with the Bull's-Eye team leading the Vollendas by three games. . . . Tentative plans called for a men's party to be held this month and a girls' party for April.

Kodak Park activities: More than one hundred K.P.A.A. members, including the various K.P.A.A. representative teams, attended the first Annual Sports Dinner sponsored by the *Democrat and Chronicle* Athletic Association on February 5th. A plaque was presented to Joe Minella in recognition of his fine job as manager of the 1940 World's Amateur

Softball Champions. Announcement was made of the election of Harold (Shifty) Gears, softball's greatest pitcher, to Rochester's "Sport Hall of Fame." His name, along with nine others, will be engraved on a tablet in the new Sports Arena, and other names will be added from year to year. . . . Teams from the Girls' Bowling League made excellent showings in the Women's City Tournament. The Plate Department team finished second, and Film Emulsion Coating eleventh, in Class C competition. In Class B, Building 58 team was in nineteenth place ahead of the Acetate team which finished in twenty-fifth, . . . The Ridge Construction team in the Men's "A" League had topped all 3-game records with a rousing 3,100, which included a high single game of 1,152. Additional qualifiers for the Times-Union Classic were: Daniel Meagher, Field Division 4 League, 706; Kenneth Quetchenback, Chemical Plant Laboratory team in the Thursday "B 16" League, 703; and George Williams, Recovery team in the same league, 701. . . . With two games remaining in the Dusty League schedule, the Basketball Team held a slight lead with nine victories in ten starts.

Building 48 was still ahead in the Department Basketball League with a perfect score of twelve straight wins... The third Men's Smoker was scheduled for Friday, March 14th, in the assembly hall... More than 700 K.P.A.A. members and their friends joined the excursion to Buffalo on Friday evening, February 21st, to enjoy the Ice Follies of 1941.... The Girls' Bowling League held its annual dance and card party on February 28th in the assembly hall.... And the K.P.A.A. girls staged a roller-skating party for March 4th.

Hawk-Eye highlights: Members of the bowling team which competed for the Lovejoy Trophy were Walter Isselhard, Chester Pero, Fred Ross, Elmer Eckert, James Weagley, and Edward Greenauer. Weagley was high for the season, followed by Pero and Greenauer. . . . The girls' bowling team competing for the Sulzer Trophy included Mary Farrell, Helen Maloy, Irene Faltz, Rose Herman, Sylvia Hirsch, and Bernice Williams. . . . The Hawk-Eye Badminton Club will be represented in the Rochester District Championship matches by Jerry Holland and Frank Comstock. They will also compete in the National Championship Tournament, to be held in Cleveland during April. . . . Three hundred merrymaking members of the Camera Club turned outfor the Annual Party, February 8th.



The Annual Camera Works Girls' Party on February 5th featured a brilliant showing of today's styles for milady

### Did You Know?

That, in 1939, it cost all participating welfare agencies—city, county, towns, state, and federal—in Monroe County, New York, \$117.70 a month to carry a case on work relief, according to Municipal Research? And in the same year, according to Bulletin figures, it cost \$47.38 a month to carry a home-relief case.

That some cotton yarn is so fine that 50 miles of it are needed to make a pound? This yarn is spun on ordinary textile machinery to make typewriter ribbons, airplane fabrics, and fine dress materials. K O D A K Page 13

### "The Spirit of Drake and Raleigh"

Out of Horror, Courage Has Emerged, Bright and Shining

The following is from a letter written by a Kodak Limited employee, and received some weeks ago in Rochester.

I LIVE IN A STATE of constant wonderment these days. All about me I see the horror of what we all expected in a war, but with a difference. It seems I never really understood my fellow countrymen until now, in the midst of dangers and disasters. Out of the horror and madness has emerged the courage of the whole people, bright and shining for all to see. The faults and virtues of the people of this land are still here as before, but over and above everything the people's courage fills a shattered town with hope and banishes all despair.

I find it very difficult to convey what I want to say, because we never talk about it over here, but actually we've dug ourselves in and here we'll stav until we've won. I know and yet I don't know why the whole population endures the most frightening air attacks each night and yet comes up every morning as chirpy as ever. It isn't because of "the green fields of old England" because these have no place in the lives of many of the poorer citizens of our cities, and the poorest have shown the greatest courage. It isn't from a love of war, because it was hatred of war that has put us in this present position. Yet somehow or other, by hook or by crook, everyone, poor or rich, is determined to see this thing through to the end. I think it's really because we all know what we are fighting against, and every shattered house and building shows us how right we are. By indiscriminate bombing they have ruined many of our most loved and historic edifices. These were but the symbols of our freedom, the reality is in ourselves.

### Heroes All

The spirit of Drake and Raleigh, Grenville and Nelson is still alive, indeed it is multiplied so that everyone, man, woman, and child, has become imbued with some of the attributes of heroes.

I have seen sights which have brought tears to my eyes: streets and houses smashed; furnishings scattered and broken—all around a scene of utter desolation. Yet, the very next morning after the raid, the men who lived in those houses were back at work, and their wives were helping one another to find a new place to live.

I have written about the civilian population first because it should be their privilege. After all it is hardest to have to take the blows without being able to return them. In this connection, the A.R.P. and A.F.S. have been very good indeed, and fully up to scratch. Now, after some months of intensive bombing, everyone has become more or less used to it and the savoir-faire displayed by all is the result of experience.

### No Heroics

If you have had the patience to read so far, I must hasten to correct a possible impression which I did not intend to convey. We do not go around waving shining swords or feeling particularly brave. In fact, I must emphasize that the whole point is that people go about their business in just exactly the same way, war or no war, and nobody talks about their bombs, trouble, or fear. Everyone is

conscious that all are in his spot of bother and that consequently it is better to ignore trouble. And anyway, there is nothing worse than a bomb bore. We are all scared stiff at times, but when things happen it is surprising how everyone rallies around and risks his or her neck putting out incendiaries and helping one another.

### Looking Forward

We are all very grateful for the help given to us by the U.S.A. Without this help we all know we should be "in the soup." But there is one thing we all want. After this war, the U.S. A. must give us a hand to secure a just and honorable peace. We do not feel that we alone can secure the world against war, because we know our own faults. We feel that for a short time we shall need a lot of help to ensure a true perspective. For, after all we have endured and are to endure, we must not throw away the last chance of forming a world free from risk of major wars in the following years. We must keep our senses and try to see that our sons and daughters shall be free from the fear of war. It can't be done by looking the other way.

### From a 53-Year-Old Negative



The picture that appears above is a reproduction from an Eastman stripping film that was exposed 53 years ago. Holding the horse is Brackett H. Clark, a director and secretary of the Eastman Dry Plate and Film Company. Mr. Clark, who died in 1900, purchased on behalf of the Company the first strip of ground—a ten-acre lot—for Kodak Park

### What's Going To Happen

March 11—Kodak Park Foremen's Club monthly dinner meeting

March 12—Camera Works card party, in the Kodak Office dining room

March 13—Camera Club ciné section monthly meeting

March 14—Camera Works supervisors' annual banquet, at Powers Hotel

—K.P.A.A. men's smoker, in the assembly hall

Mid-March—K.P.A.A. girls' book review, by Mrs. Oakley Norton

March 20—Camera Club pictorial section competition for black-andwhite prints; Kenneth W. Williams, Kodak Office, reviewer

March 27—Camera Club pictorial section monthly competition for color transparencies

April 5 and 6—A.B.C. National Tournament, St. Paul, Minnesota; Kodak Park team entered

April 7—Kodak Office Bridge Club, opening of individual tournament

April 9—K.P.A.A. girls' meeting and talk by Thayer Soule on "Mediterranean Odessy"

April 10—Camera Club regular monthly meeting

### "Blitz" Experiences

(Continued from page 2)

the entire roadway and pavement were piled high with debris, while down the center of the road poured a torrent of water. The front of the corner house opposite had gone and exposed to view the center iron staircase, down which we could see people trying to get to the ground, clinging on to the remaining wall. We heard afterwards that the remaining part of the staircase collapsed before they could get to safety.

About five minutes later, there was a third bomb crash, Soon afterwards we heard the warden calling out that we must all evacuate the houses as the gas mains had burst. We crowded into the street, and, falling over, cutting our legs and hands, trying to keep out of the water, we slithered down that road in the pitch dark, clutching suitcases, rugs, and coats, with the barrage still banging away. To our great relief and surprise, at the bottom of the road, where we were wondering where to go at three o'clock in the morning, we found a lone taxi-where it had come from we never discovered.

Somehow we all piled in and the genial driver managed to shut the door. Then he calmly waited while we made up our minds where to go. He eventually took us to a relative of one of the girls, about a mile or so away, but owing to bombs round about, he had to go a great deal out of his way. When we arrived, and asked him what we owed him, he casually said, "Oh, let's say sixpence each." In the circumstances we would have given him anything he asked but I am afraid we were all so

tired that we merely said thank you and paid him. We only wish now that we could see him to thank him properly for his kindness and patience.

It amuses me now to remember the various things which worried us early the following morning. One woman was worrying about her best chair which was near the glassless window and might get wet if it should rain! Another kept wishing her husband had managed to save his best suit instead of his working one! While I was wishing I had saved some knitting wool for a frock I was making, and on which I had spent considerable energy! Looking back on it now, it seems remarkable that we could sit laughing at such things as this when we did not know whether we had lost everything or not.

### His Death Is Announced



Nils Bouveng, for many years liaison officer between Kodak in Rochester and the associated European companies, died recently in Stockholm. See page 10

### The United States Navy

(Continued from page 5)

successfully blockaded the Harbor of Tripoli, captured several enemy merchantmen, and forced the Dey to sue for peace.

From that time until this day, the United States Navy has served to protect our interests upon the seven seas. It has passed through periods of glorious action and through periods of neglect and decay. But the valor of American seamen and the stanchness of American ships have written a glorious story through the years—a story of which every American may be justly proud.

Today, the U.S. Navy is hailed as "perhaps the greatest concentration of mechanical marvels and human skill ever assembled under one command." Its mighty battleships, cruisers, destroyers, aircraft carriers, and submarines form an impressive sight when the Fleet passes in review; but its job is done with a minimum of fanfare, and with a maximum of efficiency.

### They Keep the City

(Continued from page 3)

Two documentary motion pictures, one on the water system and the other on mechanized street cleaning, are recent valuable contributions of the photographic section of the division of engineering. This section makes photographic records for every department in the city government, turning out more than five thousand photographs of either technical or legal importance each year.

### The Beginning

Looking at Rochester today, with its 320,000 citizens, its network of bustling highways, its well-ordered services in both business and residential areas, it seems incredible that up to less than seventy years ago the engineering work of the city was handled by one surveyor. Not until 1872 was a special engineering staff assembled, to plan and construct the water works. Then, in 1900, Rochester came under the "White Charter," which created a bureau of engineering in the Department of Public Works and made it responsible for all the engineering work in the city.

### OUT OF THE HAT

### Seismologist



Earl E. White: he forefells trembles

We've run across a good many kinds of hobbies in our day, but it rather took our breath to hear of a man who forecasts earthquakes as a hobby—and does it with quite uncanny accuracy. So we hurried over to see Earl E. White, of the Drafting Department at Camera Works, and asked him to tell us how he does it.

It seems that many years ago, Charles Rollins-an architect and contractor of Buffalo, and grandfather of Mr. White's wife-developed a theory to explain the occurrence of earthquakes. Employing his theory, Mr. Rollins was able to make accurate predictions of coming earthquakes, his most notable being a prediction of the San Francisco disaster more than a year before it occurred. It was his contention that a line of electronic force flows between the sun and each of the planets, and that whenever the earth moves into one of these lines of force, it creates a resistance which causes it to heat up-just as a wire will grow warm when it creates a resistance to electricity. But as the earth moves out of this line of electronic force, Mr. Rollins held, it cools off, causing a contraction of the earth's crust and earthquakes.

This theory, never fully accepted during Mr. Rollins' lifetime, has been revived in various forms. In the meantime, Mr. White has served as a kind of a spiritual heir to Mr. Rollins' theories, and he studies their application in his spare time.

"I haven't the great mathematical ability which Mr. Rollins had for working out the astronomical calculations involved," Mr. White explains, "but my predictions have held to a very fair level of accuracy."

In addition to keeping on familiar terms with Nature's most cataclysmic moods, Mr. White devotes much time to many other outside interests. For six years, he has sung tenor with the Rochester Opera group, having appeared in all but two of its productions during that time. Right now he's directing a chorus of fifty voices in preparation for a show.

As if all this weren't enough, Mr. White devotes every Tuesday evening and Saturday morning to teaching the art of air brushing at the Rochester Athenaeum and Mechanics Institute.

At one time Mr. White was a professional motion picture projectionist. He has retained interest in that field through his activities in the ciné group of the Kodak Camera Club, of which he was chairman in 1939.

### Sailor

"Though we were tossed about a good deal by large waves, we rode at anchor in comparative security while the doomed city above us was destroyed."

James A. Studley, of Field Gang No. 3, Kodak Park, was recalling the destruction of San Francisco by earthquake on the night of April 18th, 1906. His boat, the U.S.S. Buffalo, had arrived in the Bay from Panama on the very eve of that memorable disaster.

It was but one of many exciting events which Mr. Studley encountered during seventeen years of service with the Navy. From 1905 until his retirement from active duty in 1922, he visited almost every maritime nation in the world. During those years he saw service in every United States military campaign, and today he can

display an impressive list of campaign medals for seeing action in Nicaragua in 1912, Veracruz in 1914, Haiti in 1915 and again in 1919-20, Dominican Republic in 1916, and the World War in 1917-18.

In the fall of 1911, while his ship was in the Orient, he saved several Chinese from a burning boat and received a silver lifesaving medal for his exploit.

Again, in the World War, Mr. Studley rescued two shipmates from certain death in the boiler room of a destroyer on which he was serving. For his heroism, he received a letter of commendation from Secretary of the Navy Josephus Daniels and a personal letter of gratitude from Admiral Sims, who commanded America's overseas fleet.

Mr. Studley recalls, too, the time when disaster struck the cruiser *Charleston* in Philippine waters. During target practice, a three-inch gun exploded and killed thirty of his shipmates.

Despite all these active years of dangerous campaigning, during which he served as chief machinist's mate, Mr. Studley was wounded but once, in the assault on Veracruz when 29 Americans lost their lives.



James A. Studley: he can display

### A Depot for Travelers of the Skies



Pictorially expressed in the pictures above is the phenomenal development of air transportation in America. Hurled forward by its 1000-horsepower engines, the giant transport strikes a New World note that contrasts sharply with the stagecoach of other years. Within the huge new air terminal in Manhattan, six great air lines have centered their services for metropolitan travelers. The center picture shows part of the vast rotunda through which a million air passengers are expected to pass each year. Pictures by courtesy of American Airlines

Opened in January, this Modern Air-Line Terminal Serves Host Of Passengers in Heart of City

AMERICA MARKED ANOTHER MILEstone of rapid progress in air transportation when the first consolidated passenger terminal was opened in New York City in late January. Standing at the corner of 42nd Street and Park Avenue, in the very heart of Manhattan, this impressive six-story structure shelters the offices and ticket counters of six major air lines whose networks of air routes stretch over the United States and to many foreign lands.

Most air travelers arriving at or leaving New York City will pass through the new terminal which is connected with LaGuardia Field by private coach service. Here, outgoing passengers will check their baggage and purchase their tickets. Incoming travelers, on arriving from the airfield, will here find their baggage awaiting them. An information desk, restaurant, public telephones, and a movie theater are located in the building for the convenience of patrons.

### The Traffic Plan

The terminal is so planned that the flow of incoming and outgoing traffic never crosses. The departing traveler takes an escalator to the huge second-floor rotunda where he checks his baggage and obtains his tickets. As his baggage is carried away on a conveyor belt, he walks to one of the "levelators" which raise the coaches to floor level for easy loading. Meanwhile, passengers arriving from the airfield are discharged on a lower floor where they have ready access to subways and streets.

Decorations and furnishings of the building are done almost entirely in steel, special treatment giving the metal colors that vary between black, gold, and rust. The rotunda is dominated by a huge aluminum figure of Mercury, symbolizing the speed of air travel. The exterior of the building is white, a reproduction of an airport beacon surmounting its front roof piece.

It is estimated that fully a million air travelers will pass through the new terminal during its first year.



"SEA QUEEN": the majestic beauty of a ship under full sail is eloquently captured in this snapshot



