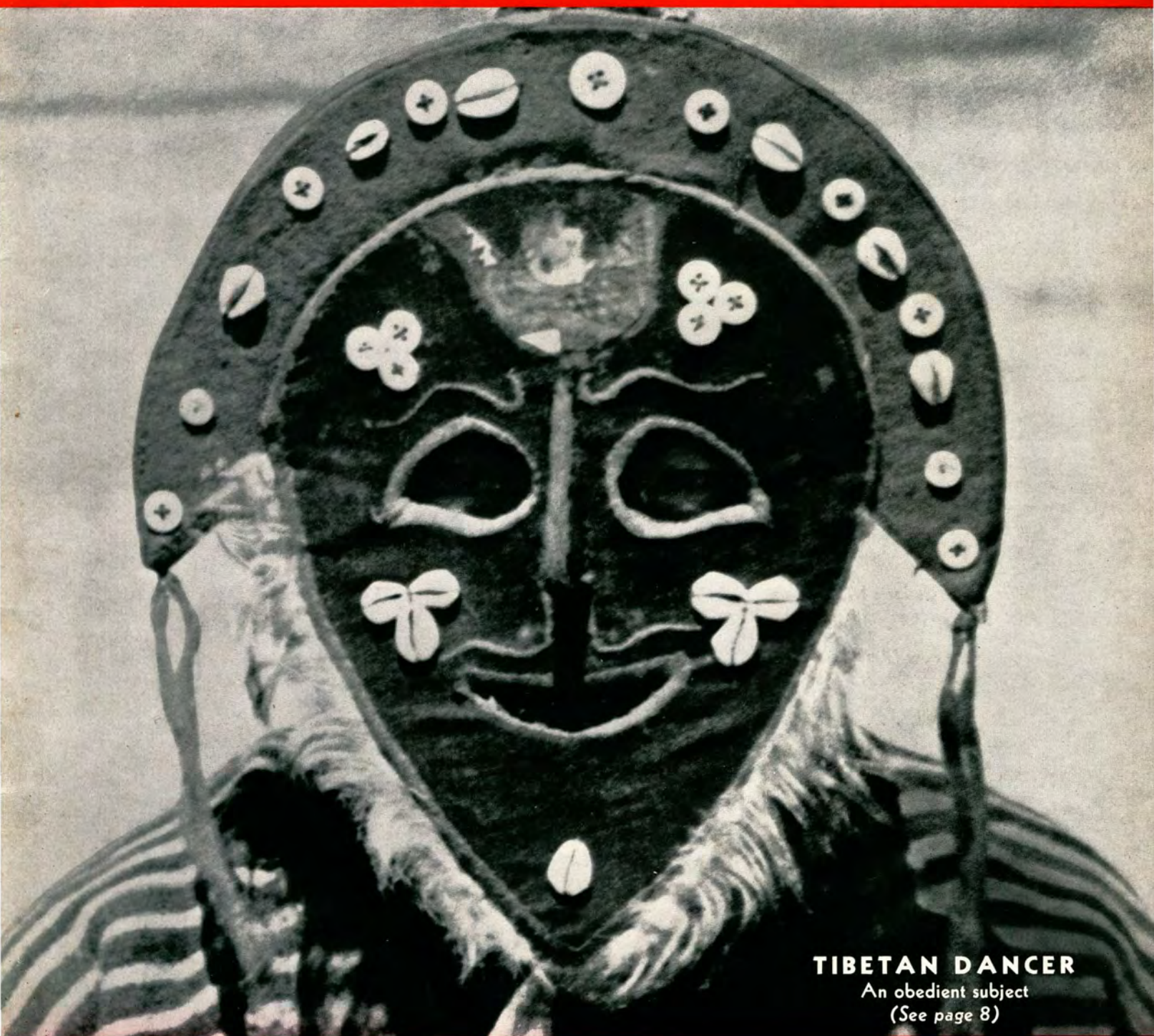


KODAK

A MAGAZINE FOR EASTMAN EMPLOYEES



TIBETAN DANCER

An obedient subject
(See page 8)

FEBRUARY 1937



COLD WHITE GHOSTS: the ice pinnacles of the Main Rongbuk Glacier, which stretches down from the slopes of Mount Everest. An illustrated account of man's assaults on the world's highest peak, in which a former Kodak man and his cameras have taken part, begins on page 8

NOW, LET'S SEE . . .

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KODAK

Volume 16

FEBRUARY 1937

Number 1

A Laboratory Under a Microscope

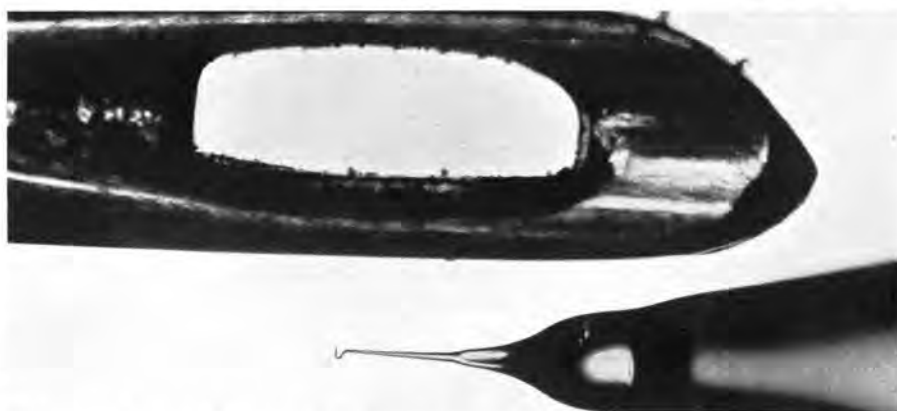
Among Kodak's Painstaking Jobs, This Assignment Is Perhaps the Most Delicate

OURS IS THE LARGEST organization in the world engaged in the manufacture of photographic materials, and Kodak Park is by far the largest plant making such products. Bigness is apparent throughout. The output of this largest plant goes forth in trainload quantities . . .

. . . but—all of this comes from test tubes!

That's figurative, of course; yet it is the test-tube care given to the manufacture and testing of our photosensitive products that keeps the public buying them. The portrait studio on Market Street, the motion-picture corporation in Hollywood, the observatory on a mountaintop, the corner drug store's customer: they all deserve and demand the greatest possible purity and uniformity in photographic materials—

(Please turn to the next page)



With a needle's eye for comparison, here is a tool used in microscopic analysis of particles

WATCH A "MICROTOOL" BEING MADE under the microscope. A "microhook" is to be formed from chemical-resistant glass



1. A platinum filament is electrically heated to cherry red (Magnification in this photograph: 4 times)



2. The fine glass tip of a tool approaches the filament (Magnification in this photograph: 100 times)



3. A bead of glass from the tip is fused to the filament (Magnification in this photograph: 150 times)



4. By controlling the heat and drawing away the tip . . . (Magnification in this photograph: 150 times)



5. . . . a very delicate, symmetrical point may be formed (Magnification in this photograph: 150 times)



6. For bending the point into a hook, this heating unit . . . (Magnification in this photograph: 4 times)



7. . . . softens the glass at the extreme tip of the tool (Magnification in this photograph: 150 times)



8. The tip is moved back and forth against the heat unit (Magnification in this photograph: 150 times)



9. In practically a single motion, the hook is formed (Magnification in this photograph: 150 times)



10. Here is the finished tool. Though the tip is too small for the naked eye to distinguish, the lines are graceful (The magnification of the microhook in this photograph is stepped up to 350 times the original size)

Under a Microscope

(Continued from the preceding page)

and Kodak Park's meticulous scientific methods of manufacturing-control are responsible for giving it to them.

It takes only a few lines of type for a discussion of Kodak's size to get down to the detailed, painstaking work that underlies this company's volume of production and sales. Scratch the surface of Kodak's bigness and you'll find a great many testing and checking and experimental jobs that a less exacting product than photographic goods would not require. The test-tube technique prevails. It has to prevail.

It would be impossible to pick any one job as the most painstaking; but, just for an extreme to go to, let's look at one that is pretty surely the most delicate.

It is carried on under a microscope in the Kodak Research Laboratories, at Kodak Park. The man at the other end of the microscope is Robert N. Titus. Under his lenses, Mr. Titus has what is, in effect, a complete laboratory for analyzing particles of chemical substances too small to be seen without being magnified very greatly.

Complete Examination

In this curious laboratory, a speck of material that would be lost on the point of a needle is treated with no more awe than a "life size" chemist would feel for a beakerful of the same substance. Such a particle can be moved about at will; it can be heated; it can be distilled; its light-absorption can be measured; and it can be caused to go into

reaction with other chemicals—all under the full control of the chemical analyst looking through the lenses.

In Kodak Park's unrelenting fight against impurities, the laboratory under a microscope is a useful ally. It can identify invisible impurities that would damage sensitized goods. Iron, copper, oil, dirt—no speck can escape this strict scrutiny.

"Should Be Kept in Sight"

Those of us whose chemistry is confined to cooking a steak when the wife is away would wonder how the micrurgist ("micrurgy" is the name of this particular branch of science) obtains his speck in the first place. A sentence from a scientific paper by Mr. Titus yields some clues: "Whether the particle be teased out of the material, dissected from it, the material dissolved from around it, or merely selected from among other particles, as in a dust, it should"—and here we laymen again wonder how—"it should be kept in sight after it is once found."

Yes, that's a proper warning, the kitchen chemist will feel; and Mr. Titus' paper obliges by giving directions: "The two safe places to leave a particle are (1) in the center of a microscope field, or (2) firmly attached to the tip of a microtool."

That last, unfamiliar word describes a type of instrument that leads the uninitiated to their first real comprehension of the size of the particles analyzed in the laboratory under a microscope. The photomicrographic comparison on the preceding page—the comparison of a "microhook" with a needle's eye—seems to be the key to the scale of operations, and makes the series of views of the

Here We Were in '84

EASTMAN DRY PLATE CO.

MANUFACTURERS OF GELATINE DRY PLATES
CORNER OF STATE AND VOGHT STREETS.

The art photographic is nothing if not progressive as all admit who are familiar with what has been done since Daguerre introduced his first rude process, not much more than fifty years ago. From it, however, has sprung innumerable improvements and processes, and of these perhaps, the most important is that which is known as the gelatine dry plate process.

In this city The Eastman Dry Plate Co., has been established since the year 1880, and at the premises utilized for carrying on the business every facility is to be found at hand. They were built especially for the purpose and in appointments are perfect in character. The building is of the dimensions of 66x90 feet, and comprises four floors. Adjacent is a boiler house 66x22, whence the motive power is furnished.

The advantages to the photographer in adopting this process are of an important nature. In the first place the use of collodion and ether is entirely done away, thus avoiding the disagreeable smell incident to the photographic studios under the old method. Next the plate being at once ready for use, the photographer is enabled to take double the number of negatives in the same space of time.

The glass used is of the best imported plate and which is cleaned and coated of gelatine and silver by the utilization of patented machinery. Other appliances are also utilized in the factory such as ventilating blowers, and a sixty light dynamo engine supplies the factory with the Edison electric light; altogether in its appointments, it is as complete as money can make it and employment is furnished in connection with it for about thirty employees.

The firm is composed of Messrs. H. A. Strong & George Eastman. Both these gentlemen are residents of Rochester, and are well and favorably known to the community. Mr. Strong is a member of the firm of Strong & Woodbury, of this city, and Mr. Eastman, who is thoroughly practical in all that pertains to the business, devotes his time and attention to the supervision of the works thus ensuring that only the very best of work shall leave the establishment.

When Rochester was fifty years old, a book was published to commemorate the occasion. Among its descriptions, mostly longer, of the city's businesses appeared the text that is reproduced here: an interesting document

formation of these tools exceedingly interesting (again see the preceding page). Shaping its own tools is the first task the laboratory under a microscope has to perform.

Obviously, no hand would be steady enough to manipulate instruments with such small points; so the "micromanipulator"—which is the name for the complete apparatus—is equipped with clamps to hold them. The microtools in the clamps can be controlled by accurate micrometer adjustments. This method of manipulation permits the points of these tools to be moved through extremely small distances, in any direction necessary for "handling" a particle—a thousandth of an inch, or much less.

If proof were needed, the laboratory under a microscope would seem to suggest, by its very existence, that we at Kodak don't believe that what you don't know won't hurt you.



The micromanipulator, with Mr. Titus analyzing a particle visible only under high magnification

Activities Calendar

February 19—Kodak Park smoker for men; in the assembly hall

—Hawk-Eye girls' annual party; at the plant

Late February—Kodak Office girls' party

—Kodak Office men's smoker

—Kodak Office, opening of girls' golf class

March 1—Kodak Office Book Club

March 3 to 19—Camera Club print-interchange exhibit from the San Antonio and San Joaquin camera clubs; exhibition rooms, Building 28, Kodak Park

March 4—Camera Club monthly meeting

March 8—Camera Club print-criticism meeting; Mechanics Institute

March 24 to April 7—Camera Club print-interchange exhibit from the Fort Dearborn Camera Club; at Kodak Park

March 31—Camera Works card party; in the Kodak Office auditorium

Late March—Hawk-Eye A. A. St. Patrick's party; at the plant

April 1—Camera Club monthly meeting

April 5—Kodak Office Book Club

April 12—Camera Club print-criticism meeting; Mechanics Institute

April 15—Women's International Bowling Congress play-offs—in Rochester —with Kodak women's teams entered

"Shot" Every Four Minutes



This picture is taken 30,000 times a year from the Camera Works roof as a test for cameras

THIS PICTURE of an industrial scene has its parallel in plenty of cities throughout the country. Utility, rather than beauty, is the keynote of its towering smokestacks and its industrial buildings.

But this view from the roof of Camera Works has one important distinction: it is one of the most photographed areas in the world.

Daily, cameras are trained upon it for testing purposes. For instance,

each single one of the new Kodak Bantam Specials has proved its prowess in this setting.

At the left of the photograph appears a large "B," painted on a building. That, plus the chimneys at various distances, provides a good test of focus and definition.

According to estimates, 2,500 to 3,000 snapshots a week are made on the roof, and this particular scene is photographed 30,000 times a year.

About the Skunk, Sodiumdiethyldithiocarbamate, and Such

WHAT MAKES A SKUNK A SKUNK?

They've got the answer to this question literally "bottled up" in the Synthetic Organic Chemicals Department, Kodak Park West.

The bottle containing the answer is labeled, "Butyl Mercaptan." This vile- and familiar-smelling chemical is obtained, artificially, by causing butyl alcohol and sodium sulphide to react. To the uninformed, it seems as if it might be simpler just to catch a skunk—but, of course, there is a reason for making butyl mercaptan and keeping it in a bottle.

This synthetic chemical is one of about three thousand supplied by our organic chemists to universities and research institutions for use in experimental work, and also for some commercial uses. The commercial value of butyl mercaptan is for release as a fire warning in mines. A signal bell mightn't be heard above the din, but any miner can smell a skunk.

Two chemicals that rejoice in the musical names of bilirubin and bili-

verdin are the most expensive on the shelves of the Synthetic Organic Chemicals Department. They are priced at \$25 a gram. For those who think in ounces—and for those who don't like to calculate—that makes \$708.50 an ounce.

Bilirubin is made from gallstones found in cattle. These are bought up at \$125 a pound. A pound is enough to make fifty grams of bilirubin, which is as much as there is in the entire world at one time.

Like long names? Here is one: sodiumdiethyldithiocarbamate. It's by no means the longest they've got in this department, but it's easier to handle than some of the others. The chemical that rejoices under it is useful in detecting copper where it is present in minute amounts only.

The Research Laboratories' department whence the three thousand chemicals come was founded in 1918, to insure the independence of this country in the field of synthetic

organic chemicals. It has become the chief source of supply for these compounds, in this country, for industrial and university research work.

The laboratory's first list of materials, published in 1919, contained about 150 items. Today, the catalogue is in the form of a book of more than a hundred pages—and new chemicals are being added to the list continually.

A schoolboy, seeing the equipment with which forty chemists and their assistants experiment and achieve, might say, "Why it's just like our school laboratory, only much bigger." And if you can visualize a school laboratory's equipment expanding until beakers are huge crocks, and filtration flasks are giant wringers, and men have to do their work on the floor, not only to save space but also because the size of the apparatus makes it the only convenient way of doing it, then you have rather a fair picture of what this department looks like at first sight.

KODAK PARK • NEW YORK • KODAK OFFICE • CHICAGO • KINGSFORD • PEABODY • TORONTO • SAN FRANCISCO • HAWKEYE • LIMA • CAMERA WORKS
 BUENOS AIRES • RIO DE JANEIRO • SANTIAGO • BARRANQUILLA • MONTEVIDEO • HAVANA • MEXICO, D.F. • PANAMA CITY • SHANGHAI • HONOLULU
 MAHILA • TOKYO • LONDON • HARROW • PARIS • VINCENT • TERLIN • COPENHAGEN • STUTTGART • VAC • DUBLIN • GLASGOW • COPENHAGEN
 KENYA • TANGANYIKA • UGANDA • CAPE TOWN • JOHANNESBURG • BATAVIA • CAIRO • ATHENS • BOMBAY • HAIFA • SINGAPORE • BEIRUT
 ISTANBUL • ALGIERS • BRUSSELS • THE HAGUE • MILAN • ROME • LISBON • MADRID • LAUSANNE • GENEVA • VIENNA • PRAGUE • BUDAPEST • ZAGREB
 WARSAW • BUCHAREST • OSLO • GÖTEBORG • REYKJAVIK • LAS PALMAS • COLPETTY • HELSINGFORS • MOROCCO • MALTA • MELBOURNE • WELLINGTON

Eastman Pie-Containers

"AM WRITING YOU," said a recent letter to the Eastman Kodak Company, "in regard to the container you make for carrying a baked pie. I think they are fine. I have two of them. . . . It carries a ten-inch pie tin." The writer was inquiring the price of more of these pie-containers made by Kodak.

Pie-containers certainly aren't to be found on the Company's price list, but that didn't stump the Motion Picture Film Department. Back to Iowa went a letter quoting a price for 35-millimeter film tins!

They make the best containers imaginable for pies going to or from church socials and other assemblages where pies are traded. This our movie-film sales people knew from their past experience in responding to similar requests. It was, of course, film tins to which the inquirer referred—but who, except the Motion Picture Film Department, would have thought it!

Most of the orders come from the Middle West. The orders are likely to arrive in waves, as if the idea cropped up freshly every little while.

Why not? A reel of Irene Dunne is art, and so is one of those luscious apple pies.

Long Shots

A PHOTOGRAPHIC dealer—this was in England—delivered some prints to a customer. He noticed that the figures of the people in her pictures were only about one-eighth of an inch tall, although the prints were of the 2A size. The faces couldn't be distinguished at all.

The helpful dealer thought that he should tactfully educate his customer to take close-ups.

"What small figures!" he began. "You must have been a long distance away to take these."

"Yes," the customer replied. "I was in Scotland."

Name-Sleuthing Department

TWO TOWNS in the United States are named "Kodak." Readers with good memories will recall that they are in Kentucky and in Tennessee. . . .

But this magazine's unexpected-name department wasn't content with that information—and now it can be told, after an exhaustive ten-

minute search through the *Postal Guide*. There are two towns named "Eastman," to match. One is in Georgia, one is in Wisconsin.

Apparatus Note

COMMENT BY AN amateur photographer: "The constantly increasing demands of tourists and others for light and portable apparatus have resulted in the manufacture of cameras, slides, tripods, etc., of wonderful compactness and lightness. . . . When I wish to ramble about alone, I carry in a leather case, measuring 16 by 12 by 5 inches, and weighing (empty) 5 pounds 4 ounces, a 7½ by 5 camera, 4 double backs, box of 5 lenses, focusing cloth, view meter, and shutter—total weight, including case, 19½ pounds, and on the top of this a Mawdsley's Sliding Stand in case, weighing 4 pounds."

The gentleman who was so pleased to ramble about alone with 23½ pounds of photographic apparatus was W. F. Donkin, who wrote this squib in the *British Journal Photographic Almanac* for 1885, whence it was picked up by the *Camera*.

Confronted in 1937 with a Kodak Bantam Special, which weighs only one pound in spite of its marvelous completeness, Mr. Donkin, entirely sober, might share the attitude of the inebriate who saw a mounted fish three feet long and remarked judicially, "The man who caught that fish is a liar."

Relativity

A YEAR AGO last summer, Dr. Max Herzberger crossed the ocean from Europe, with his family, to serve on the staff of the Kodak Research Laboratories, carrying on his work in higher mathematics. The Herzbergers established their dwelling in one of a row of pretty houses on a quiet Rochester street.

They have frequently spoken, since then, of their especial gratitude for the congeniality and neighborliness between themselves and the particular families living on either side of them. Nonetheless, the adult Herzbergers were unprepared with an answer recently when, at dinner, their eldest child laid down her fork, thought deeply for a moment, and then propounded this question: "How is it that we have two such very nice neighbors and they have only us?"

British Baseball

IT'S PRETTY COLD for baseball news, but this letter—from the editor of the *Kodak Works Bulletin*, at our Harrow Works—arrived just too late for the previous number: "It is very pleasing to read of the success of your softball team, especially as our lads have met with great success this year in the hardball game, becoming winners of the Metropolitan League, securing 225 runs against 43 and not losing a game; semi-finalists in All-England Amateur Cup, which unfortunately they lost; and they are in the final of the London Amateur Cup, the deciding match to be played at the opening of next season."

Soccer in Rochester and baseball in Harrow. A well rounded combination.

Statistics, If You Like 'Em

HERE'S ONE TO ADD to the statistics. The *Kodak Correspondent*, a bright little publication distributed monthly to Kodak people whose job is writing letters for the Company, prints the following calculation of the "end to end" length of letters going out of the Kodak Office in the course of a year: They would stretch for a distance of approximately 125 miles.

Add this one, too, for those who like their figures to contain plenty of commas: The four elevators in the Kodak Office tower in 1936 traveled 14,040-7/10 miles (Starter "Ben" Knight, who carefully reckoned this skyward distance, is obviously air-minded), and the elevators made 1,676,142 stops.

Concentration

TO PEOPLE who didn't know Mr. Eastman, the founder of Kodak has become almost a legendary figure. It is easy to forget that he had human problems, just like any of his co-workers. Two of the problems were getting work done, and lunch.

Back in the busiest of the early days, it was not unusual for Mr. Eastman to say to his secretary, at 3 p.m., "Have I had my lunch yet, Miss Whitney?"

In the nineties, he brought his lunch to the office in a shoe box. He owned a dozen of the boxes, and he left them at the office as they were emptied. When the dozen had accumulated, he would have his driver convey them home in the carriage.

Introducing: The Ciné-Kodak, Model E



There's no "hat interference" for "E" users

"A 16-MILLIMETER Ciné-Kodak for only \$48.50!". . . It's the Camera Works' newest product.

It doesn't look like the rest of the family, this latest addition to our Ciné-Kodak line, but it upholds all the best traditions of its famous name—besides embodying several new and excellent features.

The most apparent innovation with the Ciné-Kodak, Model E, is its shape. A related novelty is the cause of that shape.

The distinctive curves of the "E" are not the result of a designer's whim. Here's the reason for them: the supply spool and the take-up spool operate in the same plane—making for easier film-threading. Up

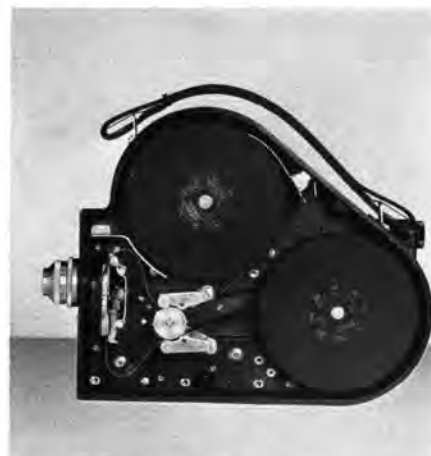


In this view-finder, both image and footage

to now, a one-plane arrangement has meant that one reel was above the other, resulting in a camera shape that caused considerable inconvenience to movie-makers who had their hats on. In the "E," the upper plane is "staggered" forward. As a result, "hat interference" is entirely avoided.

Within the view-finder of the "E," which is fully enclosed, is a film-footage indicator. This unique feature lets the movie-maker see, without having to stop the camera to do so, how much unused film remains. In addition there is, of course, the usual film-footage meter on the side.

The shutter of the "E" is geared for operation at any of three speeds: normal, intermediate, slow motion.



Looking into the "E": note "staggered" reels



With this selector, three different speeds are available: 16, 32, and 64 frames a second

For Outdoor "Shooting": A New Kodachrome Exposure Guide

IT'S THE "BULL'S EYE" every time, even for beginners, with the new Kodachrome Exposure Guide at hand when outdoor movies are made.

What to do? Simply decide which of four light conditions prevails (the guide sets them down simply

and explicitly). Then set the lower arrow on the disk (see the picture at the right) at the proper point, move it to the left or right to compensate for the color value of the subject and, presto, the upper arrow then indicates the diaphragm opening.



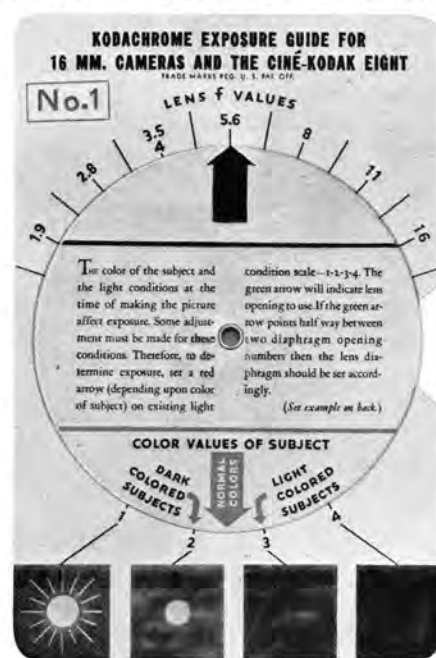
EXAMPLE • Condition of light—Bright Sun—No. 1 on light scale.

Color of subject—Dark Colored—Set small red arrow on left of No. 1.

Set lens diaphragm at f.8.

ADDITIONAL allowances of $\frac{1}{2}$ lens stop more should be made for each of the following: side lighting; winter months; before 9:00 A. M. and after 4:00 P. M. About two stops larger should be used for pictures in the shade.

Kodachrome Exposure Guide, front (right) and back views. New in both principle and design, and simple to use, it makes for excellent exposures for outdoor pictures with either 16-millimeter or 8-millimeter Ciné-Kodaks. The card is a light color; the disk, Kodak yellow; the upper arrow, green; and the lower arrow, red



Knock! "Who's There?" "Opportunity"



The photographs on this page show a night class in economics at Mechanics Institute. Some Kodak people are among the students; the teacher is Phillip C. Wolz, of Kodak Park

Summarizing the Facilities For Self-Improvement Open To Each Kodak Opportunist

WHAT OPPORTUNITIES for self-improvement are open to me?

Each one of us has probably asked himself that question at some time.

And for Kodak people—especially for those of us who are in Rochester—the answer is a happy one. There are many opportunities. Coöperation between industrial concerns on one hand, and schools and colleges in this city on the other, has resulted in a far-reaching program, designed expressly to help employees in their everyday jobs and to prepare them for advancement.

The evening courses that have been established under this program cover a wide variety of subjects.

Are you engaged in mechanical work? Mechanics Institute and the Edison Technical and Industrial High School offer courses in shop mathematics, blueprint-reading (including courses in blueprint-reading especially adapted for the pipe-fitting and millwright trades), tool- and die-making, instrument-making and experimental work, and advanced shop trigonometry—to mention but a few.

The available courses in electricity range from the elementary to a course at Mechanics Institute that includes instruction in such advanced phases of electrical work as electronic devices, photo-electric cells, and study of power-factor correction.

For those engaged in the sheet-metal trade, Edison Technical and Industrial High School offers courses in elementary sheet-metal work, as well as advanced work designed to give instruction in sheet-metal layout.

Those whose work may require a knowledge of air-conditioning will find a course at Mechanics Institute that should prove very helpful to them; and in the field of maintenance a course in building-servicing is available.

The use of welding is being increasingly extended in industrial processes. Edison Technical and Industrial High School has met this need with courses in both the arc and acetylene methods.

Accounting, business administration, stenography, and office practice are among the subjects taught at Niagara University, at the Rochester Business Institute, and at the School of Commerce.

If your job is one in which a sound knowledge of chemistry is essential to advancement, you will find excellent courses at Mechanics Institute and the University of Rochester. In the latter institution, a course in metallurgy, particularly adapted to the needs of draftsmen, designers, and engineers, has been added to the curriculum this year.

For those engaged in the handling of sensitized materials—and for all who want to know more about the art of photography—there are the beginners' classes, and the lectures, demonstrations, and popular talks of the Kodak Camera Club—the second largest photographic club in the world. There are also splendid courses at Mechanics Institute.

The Roll Call

A thousand employees from Kodak Park alone are attending evening courses this year. Add those of the Kodak Office, the Camera Works, Hawk-Eye, the Company's branches, and the Eastman Kodak Stores, and Kodak's combined student body reaches impressive proportions indeed.

Our growth in attendance at evening courses has been rapid. The scholastic year 1921-1922 found 68 Kodak Park employees enrolled. Today, the Park's roll call is fifteen times as long. The Camera Works started off with seven students. Today, it has 237, . . . and so on.

At the present time, too, twenty Kodak Park employees are acting as instructors in Rochester night schools.

The Kodak Office and the Camera Works are also represented this way.

There is the picture. Where am I?

Nightly, Kodak men and women sit in lecture halls acquiring information on many different subjects. But—from the young man taking Air-Conditioning, "because they use it in my department and I feel I ought to know about it," to the young lady intent on Typography and Layout—they have one thing in common: they are taking courses that will be of benefit to them in their daily jobs.

What course will be most worth while to me? Before deciding this question, an employee should consult his department head or a member of his employment department. He will find that they are always glad to discuss specific courses with him.

For the benefit of newer employees: there is a Company plan under which an employee may obtain a refund of half of the tuition paid for courses that are of reasonably direct benefit to his work. The maximum refund in a scholastic year is \$50.

To become eligible, he must apply—before making definite arrangements with a school—on a special form. This form, and full particulars of the plan, may be obtained from the employment departments of the Company in Rochester, or, for those outside of this city, from their managers.

Radiograph of a Raid; "Soft" Movies

The X-ray Extracts Secrets From a Snake That Dined On Canary, and From a Meal Worm

EVERYONE KNOWS THE STORY about the cat and the canary, but the one about *Elaphe guttata* and the canary is new.

Elaphe guttata—"corn snake" to you—slithered into a bird cage a while ago and swallowed a full-grown canary. Br'er Corn Snake was 25 inches long, yet slender enough so that he had no trouble crawling through the quarter-inch wire mesh. But the meal increased his diameter substantially—and he was inside the cage to stay! So he made the best of it: curled up and went peacefully to sleep in the bottom of his fattening dinner's former abode.

Ray Johnson, an x-ray technician in Miami, Florida, and Harry R. Fisher, of the Medical Division's demonstrating force, were called in—although they make no claim as experts on *Elaphe guttata*'s taste in edibles. But they do know their x-ray technique. They anesthetized the snake and then made the radiograph that

appears on this page. Yes, the canary was there, all right. If it hadn't been there, for that matter, neither would the snake.

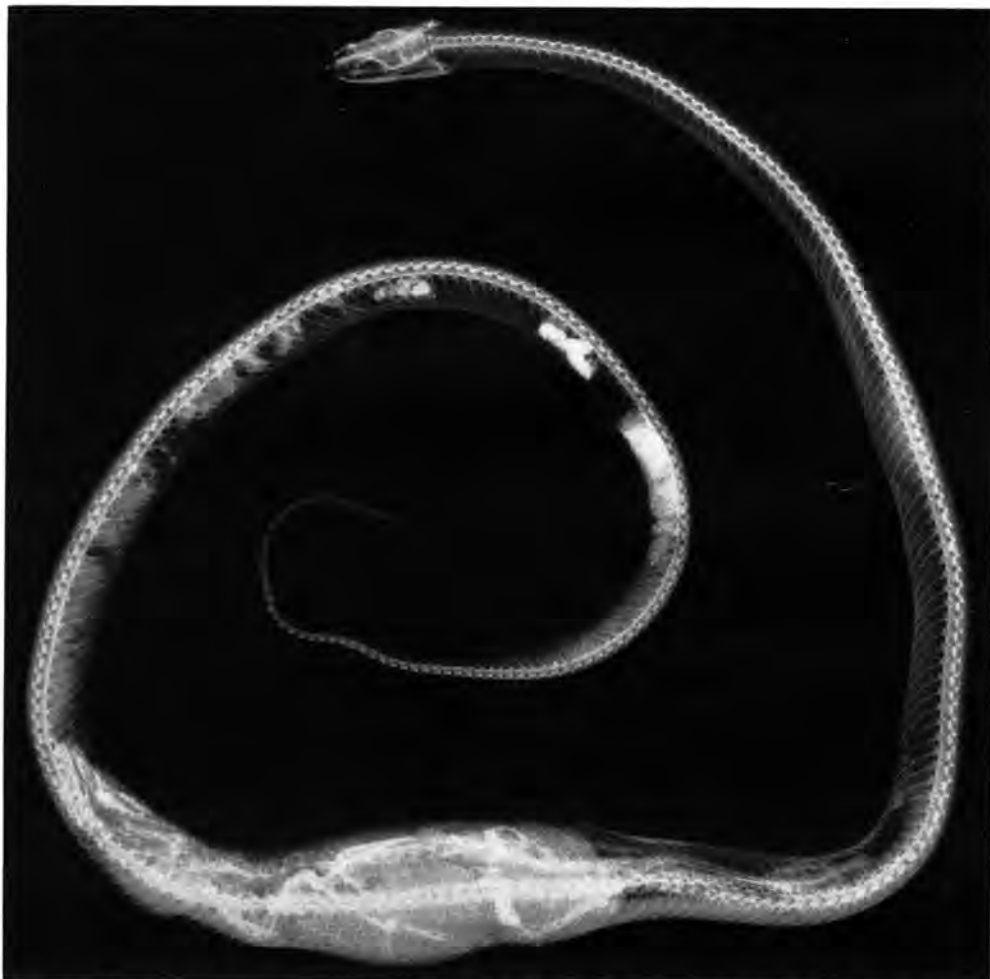
Recourse to biology textbooks discloses that *Elaphe guttata* didn't really want to eat the canary. He much prefers mice—but he *was* hungry.

That particular radiograph shows a snake's last meal. The page contains also a first: images enlarged from the first motion picture ever made by "soft x-rays." For radiographs of insects, textiles, leather, flowers, and other things delicate in structure, these rays of longer wave length must be employed, to preserve the detail.

X-ray motion pictures are not new, nor are "soft x-ray" radiographs; but the two media had not been combined until Harold F. Sherwood, Kodak Research Laboratories, completed his film on meal worms, after several years' experimentation with the method. Showings of the film were received with interest at the recent meeting of the American Association for the Advancement of Science.



These reproductions are from the first "soft x-ray" motion pictures produced: a film on meal worms, recently made in the Research Laboratories. The motion of worms' digestive organs can be studied by projection of this particular x-ray movie. Already, biologists who've seen the film feel that it provides information never before obtainable on peristaltic contractions in worms' "innards." The same method of making motion pictures by x-rays of longer wave length than usual can be applied to other delicate structures in which movement is present, which forecasts discoveries in some industrial processes, as well as in the biological sciences



Br'er Corn Snake was found comfortably curled up in the bird cage, digesting the family warbler



Frank Smythe, the mountain-climber who first brought back Mount Everest in color, was formerly an employee of Kodak Limited. With two Ciné-Kodaks in addition to the "Special" with which he is seen here, he made a Kodachrome record of 1936's assault on the world's highest mountain. Also, he took the pictures illustrating this article

The Brave Story of Efforts To Ascend to Earth's Top—Taking Pictures on the Way

MOUNT EVEREST, the highest mountain in the world, has probably never been conquered.

Eighty times as high as the 366-foot Kodak Office tower, it dominates the great chain of the Himalaya, the 1,500-mile backbone of Asia that lies between India and Tibet.

Called by the Tibetans "Chomolungma," or Goddess Mother of the Snows, Mount Everest is to them a sacred mountain. So jealously do they guard their goddess that for centuries they turned back all who attempted to approach her. Not until 1921 was permission given by the Dalai Lama, religious and secular ruler of Tibet, for a reconnaissance expedition to enter his kingdom.

It was one of the Dalai Lama's obedient subjects—in dancing regalia, with plain buttons as ornaments—that posed for the picture appearing on the front cover of this magazine.

The next year, 1922, a second expedition reached a height of more than 27,000 feet, about two thousand feet short of the summit. This was by far the greatest height attained by any known mountain-climber up to that time. A superb feat of mountaineering, it ended in disaster, seven of the party's native porters being killed in an avalanche.

In spite of this tragedy, which was regarded by Tibetans as a vengeance of the gods for intrusion in their sacred places, porters were found willing to join a new expedition in 1924. This expedition almost succeeded, two of the climbers getting within a thousand feet of the summit.

Was the Summit Reached?

It is probable that another pair of climbers on the same expedition reached a still greater height. They were last seen climbing at more than 28,000 feet and, apparently, going strong. They never returned to tell their tale, and no one knows whether or not they arrived at the summit.

Mount Everest—Man's Mightiest Challenger



Himalayan grandeur traversed by man and recorded with a Kodak; this splendid panorama of glacier-filled valley and towering peaks was made by joining five pictures together

It was not until 1932 that the Government of Tibet granted permission for another expedition to visit the mountain. The party arrived in India at the beginning of 1933, and among its number was Frank Smythe, formerly of Kodak Limited, whose photographs (taken on a later expedition: 1936) illustrate this article.

The party took train from Calcutta to Darjeeling, near the foothills of the Himalaya. From there to Mount Everest is only about a hundred miles as the crow flies; but it is more than three hundred miles to march.

Porters, Ponies, Yaks, Backs

At Darjeeling, the railroad ends and porters and ponies are hired to carry the food and equipment. These porters are splendid men, selected from tribes noted for great physical endurance. They are capable of carrying heavy loads to high altitudes over steep rock and over glacier ice.

After a long trip through the hot tropical forest and then across the cold snowbound passes, the ponies are exchanged for yaks. To the Tibetan, the ultimate is symbolized in the yak, the shabby ox which carries his load over the roadless mountainside, provides him with clothes and cloth for his tent, gives him food in the way of milk and meat, and—most important of all—is perfectly at ease in the rarified air.

The slowly moving procession of yaks and men winds across the plateau, and in about a month arrives at the Rongbuk Valley. In this valley lies the great Rongbuk Glacier, a fairyland of ice stretching down from the icy slopes of Everest itself. At this point, the yaks and their drivers return to the villages and the porters carry the supplies up the glacier on their backs.

In climbing at these high altitudes, the human body must be allowed to

(Please turn to page 12)

The Author, The Illustrator

DR. WALTER CLARK, of the Research Laboratories, who wrote this article for KODAK, is an experienced mountaineer.

He has not, as yet, attempted Mount Everest, but many an Alpine peak has yielded to him.

Mr. Smythe's pictures illustrating the article are reproduced by the courtesy of the Royal Geographic Society and of the London *Daily Telegraph*.

It may be of interest to note that the intrepid Mr. Smythe, who has since then paid his respects to grim Mount Everest more than once, was warned by his doctor a few years ago—or so we hear—that his heart was weak.

"Not too many stairs," the doctor reputedly counseled.

Whereupon Mr. Smythe avoided stairs—and, instead, tackled the world's highest mountain!

THE EDITOR'S PAGE

"All Money Is Not Alike"

"ON A FARM, IN THE OUTSKIRTS of a Lake city, there lives today in retirement a man who was for many years very active in business. The factory where he began his career is today a giant industry. One of the railroads which employed him in the 'early days' runs through his fields. If you were to visit his place and meet his family and neighbors, you might 'size him up' and estimate his wealth, but *his greatest secret* you could learn only from him.

"When he reached the crossroad of life, passing the first half of his three score and ten years, he made a discovery which has made fortunes for thousands of families. 'All money looked alike to me when I was young,' he said. 'My wife and I tried to save a little money regularly, but whenever we wanted something very badly we bought it, whether the funds came from our savings or from our income. In those days we did not know the *difference* between money. . . . One day we decided to divide what we had. We called part of it *principal* and the other part *income*. We decided to *protect* our principal and to *spend*

only our income. We protected it by investments and by additions from time to time.

" 'It was the hardest lesson we ever had to learn, but it was not many years until we found that our principal was *growing more rapidly than our children*. Today the principal is protecting us.' "

As March 1st approaches, and with it the payment of another wage dividend to Kodak employees, this look-in on the later years of one American family seems worth repeating. It is the text of a public-spirited advertisement by Rochester banks that was addressed—several wage dividends ago—to Kodak employees.

Let's carry the copy to its conclusion, which seems sound: "Your wage dividends . . . are bonuses, not income, paid to you by a prosperous and constructive industry.

"If you began today to *divide* your money, calling one part *principal* and the other *income*; if you called your wage dividends principal; protected them by investing them—you would be surprised how your principal would grow, and some day take care of you.

"The only secret there is to wealth is the *difference* between principal and income."

Annuities, Kodak and Government, form the backbone of provision for later years. But the fact of annuities should not obscure the importance of conserving part of one's money. Wage-dividend time is a good time to think about it, and the Eastman Savings and Loan Association has been found by thousands of our people a good place to carry out such a program.

Around the World on a Cartoon

RECENTLY WE WERE PLEASED as Punch with a cartoon appearing in the magazine published by Kodak Philippines, Ltd., for "the trade" in the Islands. We could hardly wait to write for permission to reproduce this piece of humorous drawing, which we had discovered on the other side of the world.

Finally, after the weeks required for mail to get across the Pacific and back, came the answer: "The cartoon which we used was taken from one of the issues of the *Kodak Salesman* of some years ago."

So . . . we walked over to the files of the *Kodak Salesman*, which is published no farther away than Rochester, New York, and there was the cartoon. . . . We hope it is really as funny as we think, after all this.

Summation

THIS ISSUE BEGINS with an account suggesting the painstaking care applied to make Eastman products as nearly perfect as possible. That attitude sums up the standards of our whole organization. There is integrity—and success—in Lord Chesterfield's maxim:—

Whatever is worth doing at all is worth doing well



"Mister, what size film do you use in that?"

Music in the Air—The Kodak Choral Society



The Kodak singers, recruited from the three Rochester plants and the Kodak Office, are making a name for themselves in their second season

Hospital Provision

THE EASTMAN KODAK COMPANY has made provision to guarantee, for a period not exceeding six months in each case, the Rochester Hospital Service Corporation premiums of employees who are temporarily absent from work with due authorization.

This step was taken by the Company because the insurance law of New York State compels cancellation of contracts when premiums are not paid within thirty days of the date on which they were due, and because the Hospital Service Corporation must thus apply the thirty-day rule.

Sherman D. Meech, director of the Corporation, elaborates the rule in these words: "The member who does not meet premium payments when due, . . . whatever the cause may be, is protected during the thirty days of grace, but must come to the office of the corporation during the days of grace and settle for the balance of the entire year's premium. Otherwise, the coverage will lapse."

In taking its step—which will be in force for at least a year—in protection of absent employees, the Kodak Company realized that they—particularly those absent on account of illness—might overlook this rigid requirement altogether, or that, finding it difficult to pay a full year's premium balance at once, they might allow their policies to lapse.

When employees who have been covered in this way return to work, deductions for the premiums during their absence will be made in the usual manner. Those who wish to send in their premiums to their payroll departments while they are absent may, of course, do so.

The Company's arrangement provides also for the protection of new employee-subscribers between the date of acceptance of their applica-

Two Bowling Records Broken

WHEN A BOWLER breaks two Kodak Office League records within fifteen days, it's news that won't have been forgotten by the time KODAK can print it. Carl M. Mattern, head of the Engraving Department, is the bowler. The records are: a score of 706 for three games; and, later, a 299—one pin less than perfect—for a single game. A silver ring from the American Bowling Congress marks the 299.

tions and the date when pay-roll deductions for the premiums commence.

These provisions concern, obviously, only employees who are subscribers for the Rochester hospital plan.

Safety Trophies

TROPHIES WILL BE AWARDED February 15th to four groups of Rochester Kodak employees—for coming out at the top of their respective classes in the twelfth annual state-wide accident campaign of Associated Industries. The awards will be made at a meeting at the Chamber of Commerce.

Trophies were earned by three Park departments—Engineering and Maintenance, Roll Coating, and Sundries—and by the factory departments of the Kodak Office. These four groups completed the campaign without a lost-time accident. Hawk-Eye also was 100 per cent, but lost the trophy to a plant that had slightly more working hours. Camera Works, with 99.956 per cent, had an honorable mention.

Kodak Sidecar and Brazilian Sugar Loaf



The Sugar Loaf is a rock at the entrance to the Bay of Rio de Janeiro, the capital of Brazil. The spick and span vehicle is the delivery car with which our colleagues in Kodak Brasileira, Ltd., are carrying out a new ten-hour photo-finishing service for Rio dealers

Mount Everest

(Continued from page 9)

adapt itself slowly to the increasing rarity of the air. It is therefore necessary to establish a series of camps at intervals, so that the climbers may stay awhile to become acclimatized; and also so that they may have a place to return to after a hard day's climb, or in the event that bad weather sets in.

A Camp at 27,400 Feet

The first three camps on the 1933 expedition were pitched at intervals up to 21,000 feet. Life at this altitude was rendered exceedingly unpleasant by blizzards and bad weather, but later camps were established at still higher levels, the object being to get as close as possible to the top of the mountain, so that the final spurt could be made with the minimum expenditure of energy.

By almost superhuman effort on the part of the seven native porters, the highest camp was erected at 27,400 feet—not two thousand feet from the summit. This was undoubtedly the finest achievement by porters in the whole history of mountaineering, and it was certainly due to no lack of effort on their part that the top was not reached by the expedition's climbers.

The demand on the porters is no light one. They have to move on steep rock and ice slopes, across deep fields of snow; and carry tents, sleeping bags, and food on their backs—and all this at an altitude at which the air is so thin that many breaths must be taken at each step.



The goal of the Everest expeditions: the topmost peak under heaven. Mr. Smythe took this picture from the 1936 expedition's camp at Rongbuk, 16,000 feet up, sixteen miles from the mountain. In 1933, from a point 12,100 feet higher—about a thousand feet from the summit—Mr. Smythe had made the highest-up photographs ever taken

The climbing party prepares the way and leads the porters up and down. The wind blows with terrific force off the cold ice slopes, and ice blizzards are liable to spring up with intense violence. Beards and clothes become covered with ice, and fingers are frequently frostbitten.

From the topmost camp, attempts were made by the climbers to reach

the summit. Sloping slabs of rock, covered with ice and snow, rendered progress difficult; and it was barred completely at times by great walls of rock or ice.

Two of the party on one occasion, and Mr. Smythe alone on another, reached a point at about 28,100 feet—only about a thousand feet from the summit. But the hard work involved in cutting steps in the ice, and the difficulty of negotiating steep snow, rendered further progress impossible. The point reached was about the same as that achieved by two of the climbers in the expedition of 1924.

Gasping Ascent

While Mr. Smythe was at that height, he took snapshots and Ciné-Kodak pictures which show only too vividly how formidable are the difficulties of the last thousand feet of Everest. They are the highest pictures ever made on a mountain.

After the expedition was over, Mr. Smythe gave the writer a demonstration of the manner in which it is necessary to proceed at these high altitudes. The body is bent, with the weight resting on the ice ax, and one step forward is taken. The effort involved in this obliges the climber to pause and take several breaths, after which he takes another step and then gasps more, and so on. It is impossible to realize the discomfort of making the slightest movement, especially when it is accompanied by the numbing of extreme cold and the force of a high wind.

And after the failure comes the descent—which requires just as much effort as the ascent. The consolation is that, if the upper camp is reached without mishap, there is the reward of the sleeping bag!

Why Attempt It?

Eventually, the members of the party rejoin and make their way down the valley. Then follows the long trek across the plateau of Tibet, down to the warm Indian plain and the comparatively pleasant rains of the monsoon.

Why do people attempt such feats as the conquest of Everest? If you ask them, their reply is, simply, "Because it is there."

Another expedition made an additional attempt on Everest in 1936, but here again there was failure, because the bad weather turned up several weeks before it was expected. The pictures illustrating this article were made on this later occasion, by Mr. Smythe, using Panatomic Film.



The yak is the freight system of the Tibetan approach to Mount Everest. His "wide open" speed is two miles an hour, but load him an ounce beyond 160 pounds, and he won't budge

The expedition was equipped with Kodak cameras, which enabled it to bring back invaluable records. There was a Ciné-Kodak Special, fitted with an $f.1.9$ lens, a wide-angle $f.2.7$ lens, and a 6-inch telephoto $f.4.5$ lens. In addition, Mr. Smythe had a Ciné-Kodak, Model K, with an $f.1.9$ lens, and a Ciné-Kodak BB Junior, with an $f.1.9$ lens.

These cameras were equipped with Kodachrome and Ciné-Kodak Super Sensitive Panchromatic Film. There was also a Retina, in which Panatomic Film was used.

Mr. Smythe had nothing but praise for the behavior of these cameras under the very trying conditions of

the expedition. He pointed out that it is impossible to use oil in any part of the mechanism of a camera at such high altitudes, for it would freeze at the low temperatures. Without oil, however, the cameras ran perfectly, and many thousands of feet of film were exposed.

A considerable amount of photographic equipment was necessarily abandoned high up in the mountains, including several hundred feet of exposed Kodachrome Film.

It will be interesting to see whether the members of some future expedition will find this record, and, if they do so, whether it will be possible to develop good pictures.



At 23,000 feet, the party trudges higher. Along this stretch, two of the climbers nearly lost their lives in an avalanche

1936 Photography: Preview of a Review

A DARKROOM VAN in which Scotland Yard develops photographs at the scene of the crime, . . . Dutch women checking their diving faults before the Olympic Games by wearing lights that register in a camera as streaks on the film, . . . clearer motion-picture sound, by the use of invisible ultra-violet radiation for recording the sound. . . .

These are some of the points an unscientific eye catches in a preview of the photography section of the *New International Year Book's* review of progress during 1936. The book will not be published till spring, but KODAK has received permission from the publisher, the Funk & Wagnalls Company, to excerpt the copyrighted article about photography in 1936, author of which is Glenn E. Matthews, Kodak Research Laboratories.

Here are some of the year's developments that are described in the article:—

An expanded program of color motion pictures by the motion-picture industry, including Mickey Mouse's advent in proper hues.

Application of the Kodachrome process to 8-millimeter movies and to snapshot film.

A color-movie record of the 1936 Mount Everest expedition (see page 8).

A plan to map, by aerial photography, one hundred thousand square miles where erosion-control is contemplated. The exposures will be made, thirty thousand feet above sea level, with a nine-lens camera.

Cameras for photographing the larynx and inside the thorax.

X-ray motion pictures, with sound. Motion pictures made with "soft x-rays," which reveal the detail in very delicate structures (see page 7).

Advances in the field of educational motion pictures.

High-speed photographs showing an unobstructed view of the entire combustion chamber of a gasoline engine. Pictures taken inside a motor cylinder disclosed that a slow rate of diffusion of gasoline vapor was responsible for lack of efficiency in high-compression motors.

Photographic judging of races at the Olympic Games, with polarizing filters over the lenses of twin cameras to permit subsequent stereoscopic examination of the finish pictures.

Stereoscopic motion pictures in color, on an experimental basis.

Stereoscopic radiographs made with "soft x-rays."

Production of five hundred feature films and more than a thousand short subjects by the movie industry in the United States.

Increasing use of scientific control methods in the graphic arts, which produce plates for reproduction of pictures by the printing industry.

Adoption of a world standard for 16-millimeter sound film.

A method of decorating walls with photo-murals by spraying emulsion on the walls and then projecting enlarged images, followed by the spraying of developing and fixing solutions—all, of course, in red light.

Photographs printed on aluminum surfaces, for novelty purposes.

Great research activity on emulsions in the Soviet Union.

An amateur aerial camera.

A new and ingenious synchronizer for setting off Photoflash bulbs simultaneously with the instant of photographic exposure.

Advances in photographic theory; in practical photographic chemistry.



On the front cover appears a Tibetan dancer. In this view, under the walls of the old fort at Khampa Dzong, the same figure and two similar ones may be seen—look closely—as they danced for the Everest expedition



O U T O F T H E H A T

Three names are drawn and followed up. One man wasn't sight-seeing, but he saw sights. One was a singer, but he kept an audience waiting. One was a cut-glass expert who turned his attention to canal-building.

The Worst Blow

The lights in the theater fade. The curtain divides and swishes up in graceful folds. On the stage, figures loom, wraithlike, then assume definite outline as the footlights glow.



Clayton Knope: he ought to know

Another of the Eastman Theatre's series of film prologues is about to be presented: tonight, a boat scene.

The audience sits back. The conductor poises his baton. The tenor soloist in the prow of the boat breathes deeply, ready for his first note, and glances at a man who stands in the wings holding a pitch pipe to his lips. . . .

The pause lengthens. . . . Here and there in the theater people cough nervously. . . . The tenor stares at the man with the pitch pipe.

The man with the pitch pipe blows—and blows—but no sound issues. The tenor glares.

"He was holding the wrong end of the pipe to his lips."

That's how Clayton Knope, of Hawk-Eye, explains the lapse. "It was awful while it lasted," he shudders.

Mr. Knope ought to know: he was the frustrated soloist that night in 1927, before the arrival of talkies.

Mr. Knope began the study of voice as a boy. He seems to have had a habit of winning valuable scholarships, but he puts it down to "just good luck."

He was a soloist with the Rochester Civic Opera Company, and he has sung the lead in such light-opera gems as *Sweethearts* and *Prince of Pilsen*. With his wife as accompanist, he has given many concerts.

Ballads are Mr. Knope's favorite songs—especially Irish ballads, which he thinks are the most beautiful in the world.

Mr. Knope is president of the Kodak Choral Society. His hobbies are: hiking, baseball, and gardening.

Mounted Marine

Spiders that jump four feet into the air, . . . a swagger stick from the tomb of Christopher Columbus, . . . marines sleeping with their horses tied to their ankles. . . .

Just a few of the sights seen by Harlow E. Sutter, of Building 30, Kodak Park. Mr. Sutter was on no sight-seeing trip when he saw them, however. He spent two years in the Dominican Republic with the United States Marine Corps.

His regiment had the unusual distinction, for a Marine regiment, of being mounted, with its own riding school. During the greater part of the year, the Marines slept in the open, with their saddles for pillows. Their horses slept, or grazed, near by, each animal tethered to his master's ankle.



Harlow E. Sutter: he wasn't sight-seeing



Sherman A. Miller: he made it

"Good jumpers!" That is Mr. Sutter's only comment on the athletic spiders that cavorted about the camps at night. Measuring from three to four inches around the body—and that's plenty of spider!—and long-legged in proportion, they would leap high into the air and land with a distinct thud.

Mr. Sutter treasures the swagger stick that a fellow Marine carved for him from mahogany that was once part of the reputed tomb of Christopher Columbus in the cathedral in Santo Domingo, capital of the Republic. Decorated with a bullet, the regimental badge, and a coiled snake, the stick was fashioned with a piece of broken glass, a jackknife, and a razor blade. The eyes of the snake are pinheads.

Even more, perhaps, than that stick does he treasure a memory—the memory of his days on horseback. "Mounted marines," he murmurs. "There's one that will make any sailor wince!"

Cut Glass and Canals

He's an expert on cut glass. His rating is A+ when it comes to canal-construction. He's an able surveyor. He has a deep interest in Indian folklore and traditions.

Introducing: Sherman A. Miller, of Building 20, Kodak Park.

In what Mr. Miller terms his "cut-glass days," years before he came to Kodak, all the work was done by hand. It took a man a day and a half to complete an eight-inch bowl.

One job Mr. Miller was selected to do took four weeks. He's proud of it. It was a five-foot vase for exhibi-

tion at the Chicago World's Fair of the year 1893.

The making of cut-glass ware is a delicate process. First, the glass is blown into the general shape intended. Then it is ground into a cluster of glistening facets. Grindstones, continually moistened by streams of wet sand, cut the rough pattern. Emery wheels and putty powder finish the brilliant angles.

"Sounds simple, doesn't it," says Mr. Miller. "Well, get a piece of glass and try it sometime!"

From cut glass to canal-construction is a long stride. Mr. Miller made it by way of a correspondence course in engineering that eventually netted him a post in the office of the state engineer. He worked for ten years on the making of the Barge Canal from South Park, Rochester, to Pittsford.

Mr. Miller's interest in Indian life began when he headed a survey party on the Salamanca Reservation.

Benefits in Illness

THIS MAGAZINE has described, at one time or another, the various employee-benefit plans. Meanwhile, many new employees have joined our ranks. It may be of interest to them to know exactly what happens if a Kodak employee becomes ill.

If an employee is taken sick, his name is reported by his plant to the Medical Department, with the request that one of the visiting nurses call. She will usually call within about five days of the beginning of his absence, and she is glad to be of any assistance that she can.

Her work does not include any actual bedside care, but frequently



Our visiting nurses: Miss Carter, Mrs. Waldert

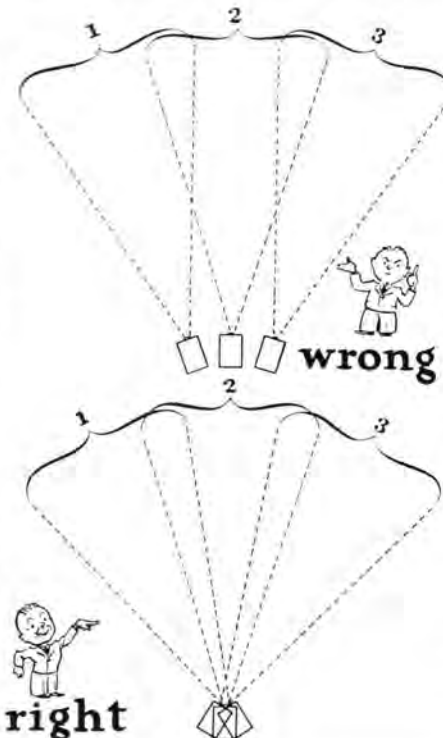
she is in a position to be of aid in advising him or his family, subject, of course, to the family physician's instructions. If hospital care should prove advisable, she can help in making the necessary arrangements.

If desired, the visiting nurse can arrange for bedside nursing service

Photographing a Panorama



In this way, *Pictures* showed how to make a panoramic view by combining separate "shots"



STRETCHING ACROSS the top of pages 8 and 9 is a very impressive panorama from the Himalaya. It was made by piecing together five photographs taken with a hand camera by Frank Smythe, on his way to climb Mount Everest.

The view of Mount Rainier on this page, and the diagram, were used by *Pictures*, a Company publication, to show the technique of making a panorama in sections, one "shot" to a section. When the prints come back, a little scissor-work will make them fit perfectly for mounting together.

It's really as simple as that. But there are one or two points to be kept in mind: the snaps should be made from the same point—not from different spots; in turning from one shot to another, the camera should be pivoted on an imaginary point beneath the lens; overlapping should be allowed in making each shot; identical exposure should be used for each.

through facilities provided by the Metropolitan Life Insurance Company. Persons employed six months, who consequently are covered by the group-insurance plan, are eligible.

If the employee has been with the Company for six months or more, he will be entitled to receive sick-benefit payments under the regular Company plan. This does not include any payment for the first week of absence. The employee will begin to receive payments with the one covering the second week. Payments are made by the regular ABC pay-roll voucher, mailed to his home address. It is not necessary to make application, for these payments are automatic.

The amount of the weekly allowance, and the period of time for which it is paid during any one employment year, are graduated according to length of continuous service. The range is from one-third pay for six weeks (after six months' service) to three-quarters pay for 26 weeks (after five years). The maximum weekly payments are from \$10 to \$22.50.

This schedule applies to all employees on the factory pay rolls.

All employees of six months' service are covered for life insurance—under the Company's contract with the Metropolitan Life Insurance Company—of an amount equal to a half year's pay. After five years' service, this is increased to a year's pay.

In Case of Disability

Should an employee's illness turn into a condition of total and permanent disability, he will be entitled (after the disability has lasted six months) to receive a disability allowance from the insurance company.

The range of disability coverage is from (after six months' service) one-third of wages for a year and a half to (after fifteen years' service) the same rate as the retirement annuity, continuing, during the disability, for life.

The supervisors in all departments of the Company are glad to be asked about details of the benefit plans with which employees are not familiar.

Annuities: Answers to Some Questions

The Social Security Act And The Eastman Retirement Plan: Replies to Queries About Them

Public discussion of the new law, and the announcement of how the Kodak plan is adjusted in conformity with the law, have combined to bring forth many inquiries upon these important subjects. The answers may be of interest to other employees, as well.

Some of the most significant queries appear here, with their answers.

Q. What is included as earnings, subject to tax under the law?

A. In addition to regular salary or wages, the following income is definitely included:—

Sick-allowance payments;
Wage dividend;
Suggestion awards.

Q. May I deduct this tax from my personal income-tax return?

A. No, it will be considered as part of your total earnings and you will pay the tax on it, in the same way that you pay the tax on that part of your income which you use to pay insurance premiums on your private policies.

Q. Are the provisions for life insurance and disability benefits under the Company plan changed in any way as a result of the federal law?

A. No. They remain exactly as before.

Q. What record do I get of my Social Security tax deductions?

A. The Company is required to give you a statement of each deduction. The stub of each ABC check has an item for this deduction and constitutes your statement. For employees on the monthly pay roll, the deposit slip shows the deduction.

Q. Under the Social Security Law, when will monthly benefits begin?

A. On and after January 1, 1942, for people who meet the requirements of the law.

Q. Suppose I am between 60 and 65 now, and won't qualify for monthly benefits. How will the law affect me?

A. Under these circumstances, you will have to pay the tax until you are 65. You will then receive from the Government a lump-sum payment of $3\frac{1}{2}$ per cent of your total taxable earnings from the end of 1936 to the time when you reach 65.

Q. Suppose I die before 65?

A. The Government would make to your estate a lump-sum payment of $3\frac{1}{2}$ per cent of your taxable earnings from the end of 1936 to death.



A Social Security account card: 26,000,000 will have been issued



A Kodak employee policy covering annuities, insurance, disability

Q. If an employee leaves the Company before the retirement date, does he receive any retirement benefits under the Company plan?

A. If a male employee who has completed twenty years of service, or a woman who has completed fifteen years, leaves for any reason, either will be entitled, nevertheless, to receive an annuity upon reaching the proper age. Under these conditions, the group life insurance is discontinued, but the employee may convert it, without medical examination, upon payment of the premium applying to his age. Employees leaving before completing this length of service will not be entitled to annuities, but they have the same option of converting the insurance, without an examination.

Q. Under the Kodak plan, may employees retire before 60 or 65 [the age depending, of course, on whether they are women or men]?

A. Yes. If the service requirement has been met, male employees may retire, with the consent of the Company, after they reach 55, and women after 50. Annuities may begin at once, with monthly benefits correspondingly smaller, or may be deferred. The reason for a reduced rate of payment at earlier ages is, of course, the fact that payments will be made for a longer period.

Q. Under the Company plan, if an employee retires with the consent of the Company before reaching 65, and defers his annuity until the normal retirement date [65 for men, 60 for women], does his insurance continue in force?

A. Yes. The insurance will remain in force for the full amount until benefits commence under the annuity plan.

Q. Under the Company plan, does an employee's right to name his beneficiary apply only to his group insurance, or can he designate a beneficiary for his annuity, too?

A. He can elect, five years prior to his normal retirement date, to have his annuity continued to his beneficiary in case of his death after retirement. In such a case, the annuity rate is adjusted in accordance with the age of the beneficiary.

Q. Is the life insurance provided for an employee under the Company plan based on his actual earnings, or is it based on his normal full-time rate of wages?

A. It is the normal full-time rate that is used in calculating the insurance. The same method applies in figuring annuities for service prior to 1929.

Q. Suppose a woman leaves to be married, after a number of years of employment, and is not again employed. Will she receive any benefits under the Social Security Law?

A. Yes. At 65, she will be entitled to benefits based on her earnings during employment beginning with 1937.

Q. Suppose I keep working after 65?

A. Payment of benefits will not begin until you actually retire, either under the Company plan or under the law. No additional benefits will be allowed for any employment after 65, either under the Company plan or under the law, and no further tax payment will be required by the law.

Supervisors will be glad to see that the people in their departments are given answers to any additional questions that they may have in mind.



"Grindelwald Upper Glacier," a photograph made by Dr. Walter Clark, who is scientific assistant to the director of the Kodak Research Laboratories, and president of the Kodak Camera Club of Rochester. Dr. Clark is the author of an article, beginning on page 8, that

describes the valiant attempts of several British expeditions to climb Mount Everest, the world's highest peak. Himself an ardent mountaineer, Dr. Clark has taken his camera on numerous ascents in the Swiss Alps, and in the Rocky Mountains here in the United States



ALLE FARBEN

gibt der Kodak Panatomic-Feinkornfilm mit allen Einzelheiten und in den richtigen Farbtonwerten wieder, denn er ist vollkommen panchromatisch, d. h. allen Farben, auch Rot gegenüber empfindlich. Er ist unbedingt verlässlich und so feinkörnig, daß sich selbst kleine Negativausschnitte zu richtigen Bildern vergrößern lassen, die auf Kodak Royal Feinkornpapier besonders gut zur Geltung gelangen.



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Kodak Panatomic Film for the amateur photographers of Czechoslovakia, a country where photographic enthusiasm runs high. This advertisement is in German, one of several languages spoken in the Central European republic