

## WHY Birds Are So Regular in Their Migrations

Scientists believe they have, at last, discovered why birds leave their spring and summer haunts in the North, and fly south on definite days every year. It is not, they are convinced, because of the change in the weather, nor because food is hard to get in the cold parts of the country during the winter months, that the little feathered folk wing their way to the sunny woods and fields below the Mason-Dixon line. It is the length of the day that counts with the birds, and when darkness comes early in the days of the fall, they go searching for longer, brighter days.

With a number of the migrating birds, the arrival date in the South is always the same, year after year. Neither food nor temperature can be held accountable for this, according to Prof. William Rowan, a Boston naturalist, writing in *Nature*, an English magazine. Length of daylight is the only factor of environment that regulates migration, he says.

Professor Rowan strengthens his theory by referring to the well-known and important discoveries concerning the influence of daylight upon plants. If the rate of growth and the time of flowering in a plant are decided to a great extent by daylight, it can also be supposed that it affects animals. Through experiments, Professor Rowan has proved that increasing daylight by artificial light will cause early growth of gonads, or "germ-glands," in birds in the dead of winter. Usually these gonads grow only after the birds have migrated. They produce song in the male birds.

Birds that have been kept by Professor Rowan in the artificial light do not migrate, no matter how cold the weather is. Other birds, kept only for a short time, disappeared for regions of longer daylight as soon as they were released.

Therefore, says Professor Rowan, it appears to be true that the length of the day has the effect on birds, which, it has always been thought, was due to temperature and food.

## Why Porpoise Makes Plunges From Water

It is not in mere playfulness that the porpoise leaps about in the sea, but for a very practical reason, points out Mack Bennett, the movie producer, in an article in *Liberty*, describing a recent trip he made to photograph the underwater life off the coast of Lower California. He writes:

"One of the mysteries of the sea to me has been the leaping of the porpoise. To my great satisfaction we got innumerable photographs of them in their quieter moments under the water, swimming in a manner quite sedate and demure, always in pairs. I learned that their purpose in leaping is to store up air in the lungs. Like the whale, the porpoise is a mammal. The whale comes up to blow and take air into his lungs, but the porpoise does the same thing on the fly. He literally compresses the air. He takes a gulp and forces it down into his air chambers, like stored-up air in a machine; then takes another gulp and compresses that until he has a lungful."

## Why Golf Is Beneficial

"There is no disease for which golf is not good. I have seen a man with one of the worst forms of valvular disease, not merely come to no harm on the links, but actually kept alive on account of his interest in the game and of the fresh air into which it brought him." This remark by Dr. Peter Fowler was one of many statements made during a recent discussion on "Sport, Its Use and Abuse," by the Westminster and Holborn division of the British Medical association. The claims of boxing, fencing, golf, motor racing and yachting were warmly advocated. A. L. W. Whitehouse, the chairman, regretted that medical men, in giving advice to patients, should so frequently put them off their sports.

## Why Polar Bear Is King

"I am convinced that the polar bear is the most dangerous beast of prey among the land animals of the North American continent," writes Donald B. MacMillan in *Field and Stream*. "He is almost as large as the Kodiak bear of southwestern Alaska and very few animals are his superior in intelligence."

Moreover, his white fur makes him difficult to see against a background of snow or ice. He has no cause for fear, for he expects every living thing he meets to make way for him. He is the king of the Arctic and he knows it."

## Why Moon Changes Size

Have you ever wondered why the rising moon looks bigger than it does a few hours later? When the moon is just above the horizon, the eye sees it without strain, but when it is near its zenith the eye muscles must be contracted to see it. The moon appears smaller.—*American Magazine*.

## Why Sparrows Were Active

Strange actions of a flock of sparrows attracted attention at Rochester, N. Y. They flew from automobile to automobile by downtown cars. The explanation was simple. In the wake of the radiator they found flies, and these and other deleterious insects had been trapped while the cars were in motion.

## HOW

### WINGS OF SEAPLANE ARE NOW MADE WATERPROOF

Curious sights are to be seen in an airplane factory. For example, in the laboratory of one corporation there have been tried experiments with a new sort of "dope" with which the wings of seaplanes are impregnated to render them waterproof. The liquid is slightly yellowish in color and held in a test tube is very transparent. When water is poured into it from another tube a strange result is obtained.

The water scarcely mixes with the varnish solution before large fluffy masses of solid material begin to form. They are true cotton balls, the cotton having been precipitated in the liquid by a mixture of distilled water. Each little fiber of the cotton seems to melt into visibility as if by magic. The masses quickly join to form cotton balls, which slowly float to the surface.

The chemical composition of the wing varnish, of course, contains the dissolved cotton in the form of cellulose. When the water is poured into the solution the cellulose, in the shape of fibers, is precipitated.

After the varnish has been spread upon the cloth of the airplane wings and has thoroughly impregnated it, the cotton in solution enters into the structure of the cloth and strengthens it as well as waterproofing it. But when the water enters the solution before the varnish has dried, then the cotton comes out and the effect of the "dope" is spoiled.

## How Famous German

### Acc Defied His Foes

With a gesture of daring that added to his reputation for fearlessness with friend and foe, Baron Manfred von Richthofen, the famous German ace in the World war, fought the allies' aviators in an airplane painted a bright and glaring red, according to Floyd Gibbons, in an article in *Liberty*. "The German flyer," writes the author, "wanted each of his adversaries in the air to know who it was they fought."

"Later," continues Gibbons, "when rumors reached the squadron that special inducements had been offered for Richthofen's head, his flying comrades prevailed upon him to let them share his special color. He consented, but always made them carry an additional color on some part of the machine, so that he retained the distinction of being all red."

## How Icebergs Are Split

A giant iceberg of indescribable beauty was recently demolished by an iceberg-destroying party whose business it is to clear steamer lanes. This berg was 500 feet long, with a hollow in the center 90 feet deep, having sides of porcelain white and containing an emerald green lake four feet deep. The wreckers, armed with ropes, ice picks, axes, drills and canisters containing thermite, mounted the berg. Then they drilled holes in the ice and inserted the thermite, which is fired by fuses and develops tremendous heat, as much as 5,000 degrees Fahrenheit. In a few hours after this treatment the largest iceberg begins to crack and disintegrate with a noise resembling an earthquake, says *Capit's Weekly*.

## How Silk Is Obtained

The silkworm spins its cocoon about itself and passes into the torpid state of a chrysalis or pupa. It is allowed to remain in this state too long, it becomes active, begins to gnaw its way out through the cocoon, and finally comes forth in the butterfly state. The cocoon is then of little value. But if, just before the chrysalis begins to grow active, the cocoon is dropped into boiling water, the insect is instantly killed, and the silk is easily unwound and reeled for the market.

## How Light Aids Flowers

A greenhouse manager at Western Springs, Ill., not far from Chicago, has experimented with strong electric light and learned that by its use petunias developed 50 per cent more blossoms and fuchsias 65 per cent more, not to mention a greater stalk growth of both kinds of flowers. The light lengthened the growing day of each plant markedly.

## How Wood Is Fireproofed

A remarkable liquid which, when used to impregnate wood, makes the wood fireproof, has been perfected by a Finnish inventor, according to *Popular Science Monthly*. In recent tests of the invention, a small building was constructed of wood that had been treated with the solution. Although the building was saturated with oil, every attempt to ignite it failed.

## How to Remove Putty

Objectable marks on ground glass, when glazing a window frame, are made by the oil in putty, and are very difficult to remove. The best and simplest way to prevent them is to rub soap on the edges of the glass before the putty is applied, so that the film will keep all stains from the glass.

## Skirts Longer in Paris Fall Modes

### Side Draperies Used; Panels and Tunics Feature of Daytime Frocks.

The collection of fall and winter models shown by M. Drecoll exclusive frocks and gowns for all occasions. The outstanding features are slightly longer skirts, with side draperies and in tailored daytime frocks the use of panels and tunics.

Suits are shown with straight little skirts wrapped to one side in a single pleat effect.

There is a considerable amount of fine tucking and plaiting noted in the sheer dresses destined for general wear, together with much inset work. Coats to wear with sport things are made along slim, straight lines, with geometric inserts and chic collars and cuffs of fur.

In the afternoon coats a second fitted line is conspicuous with flaring effects in the skirt part and a novel use of fur on one revers only. The other side of the collar is short, so that when the coat is closed a high standing collar is acquired.

A lavish use of embroidery is noted on the evening dresses and wraps in both silk and straw, while afternoon costumes have, instead of embroidery, jewelry comprising necklace, bracelet, and pin, the latter placed at the waistline or on the shoulder. Bead is stitched in clever designs and fringe is seen on sashes and in panel treatments. A decidedly youthful silhouette is accomplished by the introduction of an apron front idea made in flares, plaits or slight shirings.

The materials include velvets, satins, chiffon, crepe and the new printed chiffon velvet that is especially adaptable for mature women. Metal cloths are seen in evening wraps combined with fur and velvet. Black lace is worn over color and metal cloths.

The colors for evening wear favor black and white, with many colored wraps to complete the ensemble. Pastel shades are also well represented, but are heavily embroidered in gold, silver or self-colors.

Fur wraps are smartly cut, emphasizing the rounded fronts, especially those of ermine, sable and squirrel.

Daytime frocks are featured in black, navy and brown, with beige, gray and solid beige. Black and navy are two suit colors, with a few shown in mixed mixtures. These, however, are more for afternoon wear. A smart afternoon coat is of black cloth, with an upstanding collar and irregularly cut cuffs and hem to match of beige, broadtail. The dress is of beige crepe, with apron effect and much tucking.

## Paris Sends Charming Long Coat for Autumn



Black is the dominating color for this attractive wrap, one of the latest models from France. It is designed for fall wear.

## Shirts and Collars Are Stylish for Sports Wear

The pet thing for sports wear for women is a slightly modified edition of the standard masculine shirt, collar and the combination. Women have always hankered for the masculine in dress. Of course women have been wearing men's shirts for years. What attaches importance to it is that Paris women have made a fact of it. They wear blouses with masculine collars and sizable cravats or ties. Most women golfers have adopted shirts with soft collars. Many of the new blouses have long sleeves with cuffs of the tailored type fastened with links. These shirt blouses are also worn with tailored suits.

## Planted Chiffon

Chanel finely plants a large patterned black and white chiffon for both a dress and its accompanying coat.

## Printed Dances, Fall Fashion Shown in Paris



A dress of printed daisies is among the Paris models for fashionable women who desire the latest in fall wear.

## Revival of 1830 Dresses With Bouffant Skirts

A reaction towards the regime of the empire seems to have come over Paris—that is, in the trend of styles in recreation and in clothes.

Paris society is reviving the collars of the past century.

These dances may be responsible for the revival of the 1830 dresses with bouffant skirts often elaborately decorated. Young women have shown preference for the quaint, full-skirted dresses. For the most part, the gowns are made of tulle but much chiffon velvet and lace also is used.

One of the robes de style, launched by the house of Lanvin, has bright red poppies applied on a light bodice and full scalloped skirt of white tulle.

In harmony with the tendency toward "old-fashioned" costumes, the tulle cape with elaborate patterns worked in narrow Valenciennes lace has been designed. These capes hang down well to the hem of the dress in back and barely cover the elbows at the sides. Some are cut with a long narrow belt and others with a wide belt.

Reboux's contribution to the swing toward the styles of the empire days is a collection of hats with lace ruffled brims, a full of lace being sewed just under the edge of the hat, which is small and frames the face.

These styles may be influencing the mode of hairdressing, for in Paris today the boyish bob is almost as far behind the style as the old-fashioned pompadour of our mothers' girlhood.

Feminine line has triumphed and all those who wield the scissors, dressmakers and costume makers, are cutting with new ideas of lines that are softening and womanly.

Little curls that lie close to the ears and the forehead, or settle at the nape of the neck are advocated by Paris dressers as an antidote for the sleek, mannish haircut of last winter. For those who cannot go so far as curls there are soft waves and mild frizzes.

## Silk Velvet Brushed

### Nap, on Fashion Card

Milliners predict that silk velvet with a brushed nap like a man's silk hat will be a favorite with the women for winter. The upstanding velvet, which was launched without much success last winter, will not be revived. It is generally understood.

The new velvets are very soft and pliable and will lend itself to small tucks and to draping even better than felt. The models say. Some of the advance winter hats Paris is wearing now are of the brushed velvet. Most of them have irregular brims, or no brim at all.

## Slippers, Bags, Flowers

### Made of Silver, Gold Kid

Silver and gold kid have come to be used for many things in Paris. The bootmakers originally discovered its charms. Then the bag manufacturers and novelty designers took it up.

Now it is possible to buy slippers, handbags and shoulder bags in the same kid. People often wear slippers painted flowers in the gold and silver slippers and handbags which he designs.

## Wide Wave Best

Whether you have a marvel, permanent or finger wave, whether your hair is long or short—style experts in hair dressing agree—that the wave should be loose, flat and widely spaced, imitating as closely as possible a natural wave.

## New Wool Brooches

Wool brooches are among the new models Paris is making into costume accessories. They are made in many colors and designs, some of which are very attractive.

## Real Estate Expert On Marquette Staff

Dr. S. C. W. C. News Service—Milwaukee, Wis., Aug. 30.—William E. T. Hagen, formerly assistant in the Institute for Research in Law, Economics and Public Administration, Chicago, and member of the faculty of Northwestern University, has been appointed professor of real estate in the Marquette University college of business administration. Prof. Hagen studied at Hope College, Mich., and the University of Wisconsin, and has taught at Pasadena, Calif., Military Academy, and Northwestern.

Daniel J. McKenna, Toledo, O., a graduate of St. John's College and Harvard Law School, has been appointed to the faculty of the Marquette School of Law. He has been practicing his profession in Toledo.

## Mrs. M. Marion, 100, Dies in California

Los Angeles, Aug. 29.—Having passed the century mark by more than six months, Mrs. M. D. Marion, of Duarte, died yesterday. She was a member of one of the Spanish families of the San Gabriel valley, and her family records at the San Gabriel Mission show that she was born February 10, 1827.

## BUSINESS REVIEW

### BUYER'S GUIDE

ANY BUSINESS: 100-1000 Main Street.

AUTO REPAIRING: 100-1000 Main Street.

AUTO SUPPLIES, ACCESSORIES: 100-1000 Main Street.

AUTO TIRE REPAIRING: 100-1000 Main Street.

AUTO WASHING: 100-1000 Main Street.

AUTO WAXING: 100-1000 Main Street.

AUTO OILING: 100-1000 Main Street.

AUTO POLISHING: 100-1000 Main Street.

AUTO CLEANING: 100-1000 Main Street.

AUTO LUBRICATING: 100-1000 Main Street.

AUTO TUNING: 100-1000 Main Street.

AUTO MAINTENANCE: 100-1000 Main Street.

AUTO INSPECTION: 100-1000 Main Street.

AUTO REPAIRS: 100-1000 Main Street.

AUTO SERVICES: 100-1000 Main Street.

AUTO CARE: 100-1000 Main Street.

AUTO TREATMENT: 100-1000 Main Street.

AUTO WORK: 100-1000 Main Street.

AUTO HANDLING: 100-1000 Main Street.

AUTO OPERATION: 100-1000 Main Street.

AUTO PROCESS: 100-1000 Main Street.

AUTO MANIPULATION: 100-1000 Main Street.

AUTO TECHNIQUE: 100-1000 Main Street.

AUTO ART: 100-1000 Main Street.

AUTO SCIENCE: 100-1000 Main Street.

AUTO CRAFT: 100-1000 Main Street.

AUTO MAGIC: 100-1000 Main Street.

AUTO MYSTERY: 100-1000 Main Street.

AUTO ENIGMA: 100-1000 Main Street.

AUTO RIDDLE: 100-1000 Main Street.

AUTO PUZZLE: 100-1000 Main Street.

AUTO SECRET: 100-1000 Main Street.

AUTO TRICK: 100-1000 Main Street.

AUTO GAM: 100-1000 Main Street.

AUTO PASTIME: 100-1000 Main Street.

AUTO RECREATION: 100-1000 Main Street.

AUTO AMUSEMENT: 100-1000 Main Street.

AUTO ENTERTAINMENT: 100-1000 Main Street.

AUTO PLEASURE: 100-1000 Main Street.

AUTO JOY: 100-1000 Main Street.

AUTO HAPPINESS: 100-1000 Main Street.

AUTO WELL-BEING: 100-1000 Main Street.

AUTO HEALTH: 100-1000 Main Street.

AUTO VITALITY: 100-1000 Main Street.

AUTO ENERGY: 100-1000 Main Street.

AUTO POWER: 100-1000 Main Street.

AUTO STRENGTH: 100-1000 Main Street.

AUTO RESISTANCE: 100-1000 Main Street.

AUTO DURATION: 100-1000 Main Street.

AUTO PERSISTENCE: 100-1000 Main Street.

AUTO ENDURANCE: 100-1000 Main Street.

AUTO LONGEVITY: 100-1000 Main Street.

AUTO IMMORTALITY: 100-1000 Main Street.

AUTO ETERNITY: 100-1000 Main Street.

AUTO INFINITY: 100-1000 Main Street.

AUTO UNLIMITED: 100-1000 Main Street.

AUTO INEXHAUSTIBLE: 100-1000 Main Street.

AUTO UNDEVELOPED: 100-1000 Main Street.

AUTO UNEXPLORED: 100-1000 Main Street.

AUTO UNDISCOVERED: 100-1000 Main Street.

AUTO UNKNOWN: 100-1000 Main Street.

AUTO UNFATHOMED: 100-1000 Main Street.

AUTO UNMEASURED: 100-1000 Main Street.

AUTO UNBODIED: 100-1000 Main Street.

AUTO UNFORMED: 100-1000 Main Street.

AUTO UNSHAPELY: 100-1000 Main Street.

AUTO UNFORMED: 100-1000 Main Street.

AUTO UNFORMED: 100-1000 Main Street.

AUTO UNFORMED: 100-1000 Main Street.

AUTO UNFORMED: 100-1000 Main Street.

AUTO UNFORMED: 100-1000 Main Street.

AUTO UNFORMED: 100-1000 Main Street.

AUTO UNFORMED: 100-1000 Main Street.

## IF YOU DON'T

Know Your Own Mind

WE SUFFER LOSS

PHOTOGRAPHY

PHONE 1000

ROBERTSON & SON

200 North Water St.

What's the Difference

between a man that looks like a

man that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man

that looks like a man