

We are pleased that as a result of the publicity given to Lone Scouting as we have seen quite a few beaches through these columns many new recently that could very well benefit members have folined the movement by a similar "Good Turn."

Lone Scout visitors to Provincial the statement of Toronto recently have

showed that since its inception two visitors to Scout Headquarters, so we hope you won't forget to pay us a admitted to membership in the more all.

This week's Summer Time Proficiency Badge is the Angler's Badge. The gular troops which have been formed requirements are as follows:

2. The the most applies methods

we like to see this fraternization between the Lonies and their city brothers, and we are pleased to state that We fixe to see that the latter street the Lone see that the Lone see that the law.

Applications for membership in the law.

Applications for membership in the Lone Scouts have gone to camp this year with regular troops, at the latter's in vitation.

Applications for membership in the Lone Scouts will be received from boys between the ages of 12 and 13 inclusive, who cannot become members of regular Troop, for reason of locality specifications.

The Fencion Falls Lone Scouts also report a rather unique "Good Turn" which might be copied by other Lonies who live along the lake share. They who live along the lake shore. They partment, The Boys Scouts Associa-recently association authorition, 330 Bay Street, Toronto, 2. orities to clean up the beach, which "Lone E."

members have joined the movement by a similar Good Turn.

during the past few weeks. This

week applications for membership
have been received from Cobden, Hydro, Burkes Fails and Harriston, and Jack Bassett, of Listowel, and Harold
at Durham there is every prospect of
Nickle of Harriston was in Toronto a

full Patrol hains formed.

A recent check up of the records of a visit. Lonies who come to Trombe at the Ontario Lone Scout Department of any reason are always welcome showed that since its inception two visitors to Scout Headquarters, so we

Birds Necessary To Human Welfare

JULIAN S. HUXLEY

fossil birds known from the upper Cretaceous age, 70 or 80 million years back, all had teeth, like any lizard. When we reach the Jurassic period, When we reach the Jurassic period, Pirds have the highest temperature, Pirds have the highest temperature, and the meaning the greater speed of

which first, by acting as a heat-retaining blanket, allowed their temperates. a high level, and secondly, made flight possible.

There have been three other groups of animals to achieve true flight: one the flying insects, arose from a wholly different stock; two, from the same back-boned stock to which the birds ong—the flying mammals or bats, and the flying reptiles or pterodactyls, the latter all long extinct.

The great affivantage which the birds had over their ertebrate com-petitors in the art of flying was that they, possessing feathers, could make a wing of these; while the skinny flight-membranes of bats and pterodactyls had to be stretched taut and so de nanded attachment to hind as well as fore limbs. Bats cannot ruor hop, nor could pterodactyls; their legs are subordinated to their wings. But Linds kept their legs clear of this entanglement, as the ancestors of man kept their fore limbs clear by run ning; and so birds were free both of the air and of the earth, having one rair of limbs for each element.

Insects are the equals of birds in this respect; but they are inferior in another. They can never grow big It would take too long to go into the reason why, but the act remains; un insect as big as a swan or even as thrush is, luckily for us, unthinkable Small size is in itself a disadvantage it brings the further disadvantage in its train that it prevents an animal from having a constant temperature higher than its surroundings, for its bulk is so small in proportion to its surface that the heat general than surface that the heat generated by the chemical combustion in its muscles all leaks away in no time.

So insects are not only small, but the whole tempo of their lives goes up and down with the temperature of the outer world. They cannot achieve the constancy of living possible to bird or mammal, and are at a great disadvantage in winter, being put out of action more or less completely by

When we reach the Jurassic period, mear twice as long ago, the only two specii ens of birds so far found were so unlike any ordinary bird in their construction that, if it were not for the lucky accident of their having been embedded in such fine mud that the imprint of their feathers is still preserved to us, we should have been in doubt as to whether they were birds at all. They might have been agile reptiles, for they were toothed, had long jointed tail bones, and big claws on their fore limbs.

The time very tiploy of the temperature, the highest temperature, they have the most point of any creatures, in the highest extremes of any transfer they have the most striking and highly developed court ship of any group of animals, and their songs are 1y far the most beautiful and elaborate music that the world knew before the coming of man. The are the most mobile of creatures, and so ere at a great advantage over Birds, in fact, are an offshoot from one kind of very active reptile, probably related to some of the smaller dinosaurs. They became birds through the evolution of feathers out of the column of the column of feathers out of the column of feathers out of the column of the colu

oriy ear smail creatures, though they will include worms and snails and spiders, will for the most part be insects. Some of the larger birds eat creatures up to the scale of frogs and mice, or are carrion feeders, or prey on smaller birds or on fish. But if we could take statistics on the food of all birds, we should find that insect headed the list.

Now insects are in the great majority vegetable feeders. So that in regard to what we may call biological trade—the complicated circulation of matter through lifeless forms earth, water, and rir, through green plants, animal bodies, and microscopic scavengers like moulds and bacteria and back into lifeless forms againthe net effect of pirds is to be a check upon insects in their consumption of green plants and their products. In

this way they are allies of man.
So birds have a place in civilization While we are mechanizing life, we should see that a place is our delectation and that of our posterity.

Gain Recorded in Population The population of Stockholm has lest, it is believed, such operations increased so much that the city now has more than 500,000 inhabitants. The One farmer, resident in Manitoba.

Sunday School Lesson

August 3. Lesson VI-Saul Convert ed and Commissioned—Acts 9: 1-9 17-19; 1 Timothy 1: 12-14. Golden Text-I was not disobedie the heavenly vision.—Acts 26: 19. SAUL, PHARISTE AND PERSECUTOR Acts 9: 1, 2; 22: 3-5.

II. SAUL CONVERTED, Acts 9: 3-19a: 22: 5-16.

IIL SAUL PZEACHING, Acts 9: 19b-31 22: 17-21. PAUL, LOOKING BACK, Galatians 1 11|17; 1 Timotay 1: 12-17.

I. SAUL, PHARISEE AND PERSECUTOR Acts 9: 1, 2; 22: 3-5.

Saul's conversion as the most mo-mentous occurrence of apostolic his

the law.

Applications for membership in the Lone Scouts will be received from boys between the ages of 12 and 18 inclusive, who cannot become members of a regular Troop, for reason of locality or other handicap. Applications should be sent to the Lone Scout Department. The Boys Scouts Association, 330 Bay Street, Toronto, 2.—

However, though birds can grow big in comparison with insects, they are limited in size in comparison with other vertebrates. This comes from the fact of flight; the laws of acrodynamics make it very inconvenient for a flying bird to weigh over 50 conce.

Sauts conversion in about tory. Insented to the lone story.

(a) The Preparation. On the lonely froad to Damascus, six or eight days found to Damascus, six or eight

JULIAN S. HUXLEY
Eminent English biologist and writer.
To watch birds is delightful enough in itself; but most people like a background against which they can set their observations.

These feathered creatures, what are they in the economy of Nature? What is their history? How do they compare with other kinds of living things? There are no other animals built in at all the same way as birds. How did they come to evolve into their present condition?

The first thing that evolutionary study teaches: is that birds were not always so different from other creatures as they are today. The few fossil birds known from the upper Cretaceous age, 70 or 80 million years back, all had teeth, like any lizard.

The fact of might; the laws in dealt very inconvenient for a flying bird to weigh over 59 pounds, and quite impossible for it to weigh as much as a horse or even in weigh as much as a horse or even in the open the object of the standards. It is only birds which have even begun to grow big according to mammalian standards. The stock size for birds in fact, is from something under a voice saying, "Saul, Saul, why persecutes thou me?" Was it, then, cally true that in harrying the levillevers he had been persecuting the live of the reptiles method of reproduction by large-yoked eggs. In some ways, his followers had claimed, the true few fossil birds known from the upper Cretaceous age, 70 or 80 million years back, all had teeth, like any lizard.

shis life, 9: 6. Brought to a believer's house in Damascus, he remained there three days, blind physically and spiritually, overwhelmed at the collapse of his past life and dark as to the future. Ananias, divinely prompted, found him and showed him that all that had happened was God calling him to his service. Saul, now healed in body and spirit (9: 17), was baptized, and thus admitted to the fellowship of the believers.

III. SAUL PREACHING, Acts 9: 19b-31

tiful and elaborate music that the world knew before the coming of man. The are the most mobile of creatures, and so are at a great advantage over every other kind of animal in high altitrdes; for they can breed there and take advartage of the riches of the Arctic lands and still more of the Arctic seas during the summer, and then migrate to temperate climates.

What part do birds play is the world with the some days spent with the disciples, in Damascus, Saul retired "into Arabia" (Gal. 1: 17), probably some quiet vilage near Damascus where, in seclusion, he could ponder the meaning of his great experience and determine his future course of action. Not only the words of Ananias' vision (22: 14, 15), but his cwn nature made action of some kind inevitable. He returned to Damascus and began to preach controversially. ates.

What part do birds play in the elaborate system of exchanges which constitutes the balance of Nature? The great majority of them are caters of other animals. For this they have stuck to the ancestral predilections of the indice of the birds as a whole stuck to a meat diet; but their average size of their prey. The great majority of them are so moderate in bulk that they can orly eat small creatures, though they will include worms and snails and spiders, will for the average size of the spide and continue words of Anan nature made action of some kind in nature made action of the tongues of a Papuan tribe, and is the tongues of a Papuan tribe, and is

His Testimony. Looking back over the ears of his Christian life, he grate fully testifies that the Power which saved him at Damascus has always sustained him. The arrogance of the Pharisees has become the humility of the chief of sinners, 1 Tim. 1: 15.

Edison Forced To

Cease Active Work West Orange, N.J .- Thomas .. Edison, inventor, has been force i to case active work at the age of 84 Overwork during experiments in roducing tubber from the solded rod plant, on which the aged inventor worked steadily all winter at Fort Myers, Fla., have made it necessary for Edison to take a vacation from the laboratory, according to his brother-in-law, John V. Miller—a vacation that may presage retirement.

Harvesting In West Early This Year Winnipeg. — Wheat cutting com-menced in the St. Adolphe district of Manitoba on July 25th, the earlhas more than 500,000 inhabitants. The One farmer, resident in the census of the various districts was for 36 years, declared it was "the finished in March and shows that the total population at the beginning of population at the beginning of my experience." St. Adolphe is two miles south of Winnipeg.

Latest in Gas Masks



Three charming young ladies are exhibiting the latest types of gas masks at the Society of Chemical Industries exhibition held in Westminster, England. The exhibition displayed many of the latest

the Ontario Lone Scout Department showed that since its inception to Scout Headquarters, so we years as a about 60 boys have been admitted to membership in the most of course quite a few of these have been since transferred to regular troops which have been formed as a result of Lone Scout activity.

The Lonies at Feneton Falls under Secular Patrol Leader Doug, Warren Ir. By the usual angling methods eath have here formed as a result of Lone Scout activity.

The Lonies at Feneton Falls under Secular Patrol Leader Doug, Warren Ir. By the usual angling methods eath have here is a tree to pure leaves the temperor. According to Jewish they had the pleasure of again meetings their friends of the state by the state on specimen must be taken by flycasing or trool of troop, who camped near the town. The Lonies helped the one ounce whether for each foot in their activities with zeat.

Later the Lone Scouts were invited to visit the camp of the Sort Toronto Troop at Sandy Point, on Sturgeon and Ir. Sort the Comp at Sandy Point, on Sturgeon and Ir. Sort the Comp and July 3th, and to their surprise method they will be considered the standard partners of the Lone Scouts were invited to visit the camp of the Sort Toronto Troop at Sandy Point, on Sturgeon and the state of the Sort Toronto Troop at Sandy Point, on Sturgeon and the state of the Sort Toronto Troop at Sandy Point, on Sturgeon and the state of the standard partners of the Lone scouts were invited to visit the camp of the Sort Toronto Troop at Sandy Point, on Sturgeon and the state of the Sort Toronto Troop at Sandy Point, on Sturgeon and the state of the Sort Toronto Troop at Sandy Point, on Sturgeon and the state of the Sort Toronto Troop at Sandy Point, on Sturgeon and the state of the Sort Toronto Troop at Sandy Point, on Sturgeon and the state of the Sort Toronto Troop at Sandy Point, on Sturgeon and the state of the Sort Toronto Troop at Sandy Point, on Sturgeon and the state of the Sort Toronto Troop at Sandy Point, on Sturgeon and the state of the Sort Toro

Formerly in defining the powers and authority of the Governor-General, the etters patent directed His Excellency to carry out such instructions "as may from time to time be given him under our sign manual and signet, or by order-in-Privy Council, or by us through one of our principal secretaries of state." In the new issue, the last two references are eliminated.

The same deletion occurs in the document containing the King's inastructions

An archaism is removed from these instructions having reference to the grant of pardons, etc., by the Governor-General. Previously His Excellency had the authority to prescribe banish-ment for political offenders. That-obsolete form of punishment is done away with by merely deleting the senence which conveyed that power.

Saskatchewan-Britain Cattle Trade Growing

Regina.-Saskatchewan is shipping 150 head of cattle per week to Great Britain as a result of contracts entered into by the British Co-Operative

Vholesale Society.

During the visit of officials of this society to Regina during the spring it was suggrested approximately 100 head be shipped weekly. Officials of the Government and the Saskatchew an Live Stock Pool did not feel that the province was in a position to handle this order, and suggested starting with a small shipment and increasing it as the pool became sup-

As a result it was learn from unofficial sources shipments had grown to 150 head per week under the contract.

Former Cannibals

Demand Classics -Civilization and education have wrought such a change in the head-hunting and one-time cannibal tribes of New Guinea that an urgent

Grasshoppers Still Invade Nebraska

Country Left Barren in Wake of Hordes Despite Desperate Offensive

Buffalo, Neb.-Wooden fence posts wagon tongues, even clothing hung out to dry, were quickly devoured by the gray-yellow horde. Anything containing vegetable fibre attracts the

containing vegetance more attracts the hungry grasshoppers.
Although farmers said several millions of the grasshoppers had been killed, additional swarms are expected when eggs now infesting the ground have incubated. Fires in which bodies of the slain insects were being burned dotted the plains tonight. Introduction of poison as a weapon resulted in the death of thousands of the

At some points the bodies of the grasshoppers were piled high on the rails, impeding trains. At others they made the ground slippery beneath the tires of automobiles.

Some of the farmers, their crops destroyed, raised money by tacking the dead grasshopers in preserva-tives and selling them to fishermen for bait at 20 cents a pound.

The insect invasion has devastated

gardens, crops and fruit trees, and behind their advance stretches a sere swath. Damage already is in the millions of dollars.

Entymologists said the grasshoppers soon would sprout wings and in-crease the area of their damage. Unless checked soon, they will be in control of the entire tier of Northern Ne- that the water engine will operate braska counties.

green today, may be tomorrow with barren Fields. barren stretches. Another day, and the fer-tile Platte Valley may be barren. Dity and town dwellers also are

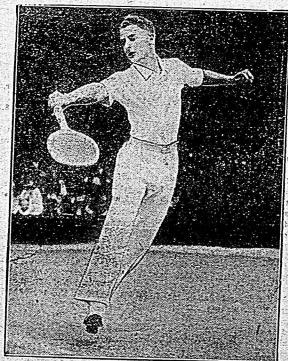
witnessing the march of the grasshoppers. Gardens and trees are left leafless. Hungry grasshoppers awarm Gardens and trees are left solidly on the houses, gather in clus-ters and fall to the ground from trees and telephone oles.

Burning of the insects was decided upon when farmers feared their cattle would die after eating the bodies grasshoppers which had been killed

Births, Deaths, Marriages

According to a bulletin issued by the Dominion Bureau of Statistics, births registered in June in 52 citles of Canada numbered 7.457, deaths 3.369 and marriages 3,706, as compared with 7,258 births, 3,644 deaths and 4,300 marriages registered in June last year, giving an increase of 2½ per cent. in births, and decreases of 71% per cent riages respectively.

For the six months January-Iun births showed a decrease of 2 per cent., deaths an increase of 31/4 pe cent, and marriages a decrease of 10% per cent. from the corresponding six



"Bunny" Austin, England's ranking Davis Cup tennis player, returns a fast one during a set which he won from Sydney Wood of

Seven Women Fliers to Compete In British Air Classic

London. — Forty-two competitors, neluding seven women, are ready to start in the 1,000 mile race for the first machines.

Lady Bailey, famous for her long disable field includes the first Canadian in the event, John C. Webster, of Montreal disable first machines.

Lady Bailey, famous for her long disable fights, is most heavily handicapped of the women entrants, being scheduled to start an hour, 52 minutes and 27 seconds after the first machines. including seven women, are ready to start in the 1,000 mile race for the The field includes the first Canadian in the event, John C. Webster, of Montreal, flying a Canadian machine.

A daughter's challenge to be

after the first starters.

No one would be surprised if the trophy remained in feminine hands for another year. Miss Winnifred is capable of a speed of 150 miles and the starter with the first group.

The scratch competitor is Flight-tiple of a speed of 150 miles and the starter with the starte Brown, who last year was the first hour. He starts two hours, 33 min-woman to capture the trophy, is heav-ily handicapped, however, leaving an

and 27 seconds after the first ma-chines which take off from Heston A daughter's challenge to her father is one of the features of the race. Capt The Hon Frederick G. Iey, daughter of a moor car manufacturer, in a plane piloted by flying together 28 minutes and nine seconds Royal Air Force speed flight, takes off with the first starter. with the first group.

Water Replaces Steam in News British Engine

Tradition of 300 Years Upset by Invention Using Liquid Working Substance

London.-A new kind of engine that rdinary steam and gas engines, with freedom from explosion hazards and heat wastes, will shortly be offered for

experimental commercial use here. It is the invention of J. F. J. Malone, engineer, of Newcasticon-Tyne, who has experimented with the novel has experimented with the water engine for several years. The details of its operating have just been

been worked always by the expansion of gases of one kind or another for some 300 years, this new kind of prime mover that is operated by expansion of liquid instead of expansion of gases has created much interest in engineer. Dr. Edward C. Resonay eminent has

Water Stays Liquid

Both the new water engine and conbut I athe case of the steam engine the now may be isolated. His experiments

Rapid heating a d cooling of the liquid water are necessary in order This was accomplished by Mr. Malone through the development of a novel form of heat transfer within one of the cylinders of the water engine. Other advantages claimed for the

ngine are: Only a small amount of water is needed and this reduces the size of the engine and allows it to be used where

vater is scarce. It runs and changes speed more It loses less heat than other engines and its outside shell is cool to the

Its mechanism is simpler and the

working parts need be opened for in-spection only once in four years. There is no incessant boiler cleaning, no water gauges, no risk of short ness or foulness of water. The control system is simpler that

It has no exhaust, as the water is ised over and over All bearings within the engine are cold and lubricated by the water itself.

New Cards Invented To Aid Bridge Players

n the steam engine.

Zurich.-A new kind of playing eards, according to The N.Y. Times, cards, according to The N.Y. Times, will soon be adopted by bridge players all over Europe and America, according to Dr. Paul Herrmann of Zurich, go the rame.

In France, as in most countries, the well-to-do citizens are inclined to forego their right to vote. It is with the purpose of getting out this portion of the roots that the backers of the bill,

complicated. Hearts are red, dia monds pink, spades black and club dark green; the cards themselves are longer and narrower than those a are used by the latter department for present used and are made to fit th resent-day duplicate contract boards. Dr. Herrmann thinks that hidding

> by players themselves, in duplicate contract, will rapidly be superseded by the employment of an announcer, thus eliminating all likelihood of informaion being wrongly transmitted by inflexion of the voice when calling. Efforts are being made to adopt a lore uniform system, both in the

forms in which contract bridge is now played and in the methods of scoring in order that international competitions may be arranged between leadng bridge clubs.

High Heels Replace Lancashire Clogs

and silk stockings that a moving picture company which has been visiting followed with great interest, for he that famous British county to make has carved out an honorable and useto the south of England for a supply of stout wooden-soled clogs for camera The clog is the traditional footween

of the Lancashire Industrial workers but even the much-talked-of trade de pression has not brought them back to popularity. Depression or no depression the mill lasses of Lancashir wear high heels and silk.

Russia's Population

Gains 35 Per Cent. Moscow.—The census of urban population taken this year shows that Mosow has increased 35.5 per cent. sinc 1926, reaching a total of 2,745,000.

The population of Sverdlovsk, for

nstance, has grown since 1926 from 134,000 to 234,000, or 79 per cent. The population of Ivanovo - Voznesensk reached 162,300 against 103,700, an increase of 49 per cent.

Scientist Explains New Discovery

New Germ Isolation Process May Aid in Devising Cures

Chicago.—A mild-mannered little man, described for fellow scientists here recently his disease germ discov-London.—A new sing of eagine that early easy, expected to the treatment of human ills diseards botlers and condensors, de as the processes evolved by the faery, expected to have as far-reaching

mous Louis Pasteur.

The man is Dr. Arnold I. Kendall, professor of bacteriology at the Northwestern University Medical School for the last 20 odd years. His discovery consists of a process of making visible under the microscope bacteria so tiny that research workers heretofore have been unable to identify it.

Since steam and other engines have the scientific world as the discoveries

Dr. Edward C. Rosenow, eminent bac-

Dr. Lendall has developed what he Both the new water engine and con-centional steam engines use water, tion in which the invisible bacteria water must be changed to steam before any work can be done. In the
Malone engine the water stays liquid
even under pressures of tons per
square inch created within the engine.

Partial beating and cooling of the it may be manufactured in laborator -. ies other than his own.

A small intestine of a rabbit, dog, swine or man, chemically treated, is the essential ingredient of the solution, he said. He asserted that his experiments in Chicago hospitals ver a period of years indicated that it could and would isolate the bacteria or a majority of the malignant dis-

Isolation of the infinitesimal germs neans that such diseases as sleeping it runs and changes speed more sickness, paralysis, influenza, cancer isselessly than conventional engines. and rheumatism may be traced to it loses less beat that other engines. their primary causes and that physiciuns hereafter may be able to devise specific cures for them.

Vote or Be Arrested

Aim of Bill in France Paris .- A law compelling all French citizens to vote, under penalty of fines, has been proposed by a group of conservative members of Parliament, Voting, they declare in the bill they have laid before the Chamber of De puties, is a duty and not a mere pri-

vilege. The Chamber of Deputies and the departmental and communal elective bodies are, they maintain, composed too largely of the representatives of minorities because the other fellows shirked their duty at the polls.

Many Instruments Tested

During the year 1930 the Physical Cesting Laboratory of the Topo-

Argentine Grain

Output Grows Ruenos Aires. Argentine wheat, orn, linseed and oats shipments this year show a considerable increase, private statistics of cereal exports reveal. A total of 1,928,752 tons of wheat was shipped from January 1 to May 22, as compared with 1.291.101 tons for the corresponding period a year ago: 2, 480,795 tons of corn, against 1,2265,482 tons: 951,045 tons of linseed, against 633,378 tons, and 301,953 tons of oats against 162,457 tons a year ago.

70-Year-Old Man Enters University

Toronto.-A freshman has been ad mitted to Queen's University, Kingston, for the summer classes, who is 70 years old, is an ex-mayor and also Lancashire Clogs an ex-member of the Canadian Parliament. Mr. I. E. Pedlow of Renfrew, Ont. is Canada's oldest "freshman." Mr. Pedlow's college days will be workers, has bad to send ful career for himself, and is now tak-of England for a supply ing his studies, which usually come first, last.

"Reckless Walking"

A charge of "reckless walking" was ecently brought in a Paris court, for the first time, it was said, in French legal history. Damages of \$2,000 were demanded by the plaintiff, a woman worker in a dressmaking establishnent, who was hurrying across the Rue de Rivoll when she collided with the defendant, a banker. The plaintiff maintained that her wrist sprained when she was thrown down

The Modern Wolf

Have you heard of the unemployed man who put a sign on his gate read ing: "Agents, solicitors, etc., etc., Keep Reware of the Wolf on the