# Curfew Hour in Ireland

Any Irish town is the "City of Dreadful Night" these days, but even the reign of terror and counter terror jointly engineered by Sinn Fein and Black and Tans has its moments of humor. Here is a gloomy description, sent by a correspondent to The Manchester Guardian, that winds up with a smile:

The streets are in total darkness, for the lights went out with a gasp as the clock struck 10. Suddenly the blinding flash of a searchlight plays from end to end of the highway; the bearing car moves slowly along, stopping to light up with a dazzling radiance every nook and corner of the intersecting side streets. Through the network of streets the cars and the foot parties of military move methodically; a trio of searchlights quivers over the roofs; now and again comes the voice of authority with a curt but determined "Halt!"

A crunching lorry with an armored car in the rear scurries from street to street. The heavy, measured tread of the pickets resounds down the byways Unto the keeping of khaki the city has been delivered.

Down a narrow alley shuffled an unkempt and shivering figure. A tramp grown tired unto weariness of the casual ward, grown sick unto fear of the damp and drafts of the hallways of the tenements. A friend had told him that curfew offenders were not treated so badly at all. They got a free motor drive, fairish quarters for the night, and it was on record that a kindly corporal had been known to pass around a packet of woodbines, a simple private been understood to have produced his pouch in case any one wanted a fill.

The tramp stepped almost boldly into the street. The sharp breeze sent his right hand to his unfastened shirt front. With a flash the searchlight had found him, while a lorry raced along to meet him. But the light was switched away; the vehicle lumbered by without noticing him. A picket marched along an intersecting street thirty yards in front, utterly oblivious of his existence.

He had grown tired of walking, and decided to draw the attention of the next picket. Then, from a doorway came the sharp command, "Halt!" The flashlight blinded him for a moment, the accouterments of the half dozen soldiers unnerved him. The sergeant wanted to know what about it.

"Honest to God, sergeant, I wouldn't be out after curfew if I had a place to sleep. I tell you"

"That'll do."

The sergeant talked aside with one of the men.

"Don't keep that bay'net so close to me, sonny," requested the tramp. "I was in the army meself, all through the Boer War. And look at me now."

"Here!" cut in the sergeant, "you pop off home! Quick about it, now!"

The tramp began to explain his case. But the glistening of the raindrops on two pairs of bayonets, the flashing of the torchlight decided him. He was about to retrace his steps.

"No, the way you were going," ordered the sergeant. "Right on home, and be nippy about it."

## Pep.

Water must be heated to 212 degrees before it can generate enough steam to force the piston in the locomotive sufficiently to move the train. Two hundred degrees won't do it; 210 degrees won't do it; 211 degrees won't do it; only 212 degrees of vapor will pull the trick.

Now, there are multitudes of men who try to move their life train with low temperature, half-hearted efforts. The enthusiasm which moves the life train and does things, won't be generated at a low temperature, an ordinary ambition, by cheap-John efforts.

The enthusiasm which buoys us up, the enthusiasm which accompanies mastership will not be generated in an idle brain, or by a half-hearted effort. It takes ginger, grit, pluck and pep to do the trick. And you can't generate these qualities by a low temperature.

## Roads Made of Oil.

Oil is the best material for modern road-making! It withstands the wear and tear of motor traffic better than anything else.

The majority of oil roads have been made with pitch, or asphalt, which is really oil that has not been refined.

Asphalt is found in California and South America, but in the sland of Trinidad alone there is a supply of asphalt practically inexhaustible. Sir Walter Raleigh it was who discovered these asphalt lakes in Trinidad. The largest he named Pitch Lake. It is about 30 acres in expanse and of unknown depth.

It is only about fifty years ago that scientists suddenly bethought themselves that this asphalt, or pitch, would be a perfect material for road-making. Previous to that this enormous supply of oil had not been made use of by man until about 1850, when some smart young men conceived the idea of getting oil from it. This enterprise failed owing to the enormous expense and the competition of the natural oil springs in other parts of the globe.

In 1870 a company was started in earnest. A factory was built on the shores of Pitch Lake, railways were laid to the coast, about a mile and a half away, and a jetty built for ships. During the next twenty years close on three million tons of asphalt were got from Pitch Lake. This did not exhaust the lake; on the contrary, as soon as a gap is made by an extraction it just fills up again in the most marvellous manner. Consequently, the size of the lake never diminishes.

## Romance of Hymns.

Some of the most beautiful and popular of our hymns were the offspring of sadness and tragedy.

Charlotte Elliott wrote "Just As I Am" when she was ill and discouraged. The Rev. Henry Francis Lyte wrote "Abide With Me" when "the darkness of death" was creeping over him.

Gowper tried to commit suicide twice and failed, after which he wrote, "God Moves in a Mysterious Way."

Apart from the great beauty of "Our Blest Redeemer" the hymn is remarkable from the fact that the authoress, Harriet Auber, first wrote it on a pane of glass in a window of her house at Hoddesdon.

"Christians, Awake, Salute the Happy Morn," has been a favorite hymn for more than one hundred and fifty years. John Byrom, the author, wrote it for his favorite daughter, Dolly, who found it one Christmas morning among her other presents.

"There is a Happy Land" was written by Andrey Young in 1838. He happened, during that year, to be spending his holiday at Rothesay, and one day passed the aternoon in the house of a friend. A little girl began to play a pretty Indian melody on the piano, and Mr. Young begged her to play it again, remarking that it would make a capital tune for a children's hymn. That night the tune still haunted him, and early in the morning he rose and, walking in the garden, wrote the hymn.

Perhaps the most quickly-written hymn was "From Greenland's Icy Mountains," composed by Bishop Heber in little more than fifteen minutes.

## Study Men.

Some men have within them that which always spurs them on, while some need artificial initiative, outside encouragement.

Some men exert themselves under stern discipline; some respond only to a gentle rein.

Some men need driving; some coaxing. Some need the spur; some the sugar lump.

Some men do their best with work piled shoulder high; some men must have it given them a piece at a time.

Some men thrive on discouragement; some cannot work without cheerfulness.

Study men—the men over you, under you, around you.

Study them and learn how to get from each the best that is in him.

# HOW ANIMALS DEFEND THEMSELVES

## USE WEAPONS PROVIDED BY NATURE.

### Have Different Ways of Fighting According to the Nature of the Enemy.

Man is the only animal who deliberately fashions weapons with which to fight. Some of his monkey cousins throw stones and nuts and anything that is handy; and a few of the larger and more powerful apes are said to use clubs, but none of these weapons were fashioned for fighting. All other animals depend on the weapons with which nature had equipped them.

And nature has not been stingy either in the perfection or the range of her gifts. To each and every species she has given some natural weapon with which it can capture (or fight to retain possession of) its food, defend itself against enemies that seek to make food of it, fight for the possession of its chosen mate, and protect its young. To one species she has given teeth, to another claws, to others hoofs, spurs, poison fangs, dagger-like bills, stings, stenches, spit balls and the like. Species which she did not endow with sufficient means for defense have either perished or survive only by their swift heels or the ability to conceal themselves with which she has supplied them.

Most animals have several different ways of fighting, according to whether they are fighting against others of their own kind or against outsiders who wish to eat them or whom they wish to eat.

Thus cats, from the household pet up to the lion, try to spring or pounce on the backs of the game they hunt and, unless the victim is much smaller, to cling there, tearing at its throat till it falls. But when they come to defend themselves against each other or against some enemy of fairly equal powers they try to get on their own backs with the enemy on top of them, so that they can use all four sets of claws to rip his undersides to ribbons.

A fight between two equally-well matched cats is a whirlwind in which each is trying to get undermost. The under-cat is in no such serious a fix as the under-dog is said to be.

When compelled to face a much stronger adversary, from which they are unable to escape or to which they are unwilling to abandon their food or their young, cats, like most other animals, bare their teeth, arch their backs, bristle their fur, and snarl in an attempt to frighten the foe away.

#### Rely Upon Their Teeth.

Very different are the fighting methods of dogs, wolves, and their kindred. These have no claws and rely almost solely on their teeth. In attacking large game they bite at his heels, attempting to hamstring the victim to prevent it from running away, or, when in packs, they spring at their quarry's throat and try to drag it down by weight of numbers. If the chosen victims also unite in self-defense, they try to frighten some unlucky beast into breaking away from the rest and then concentrate on him. Some sorts of smaller game (such as rabbits), they easily kill with a single bite; but other sorts (rats, for instance), which are fighters themselves, they try to bite, to toss quickly into the air, to catch and bite again, toss again, and so on till the victim is dead.

In fighting with their fellows some of the dog tribe "slash" with knife-like teeth and then jump away to avoid a counter stroke; others bite deep (at the throat, if possible), and hold on. Most sorts try to knock their opponents over on their backs so as to get at their throats. (In fighting with one of the big cats a wolf would try to bite and jump away before the cat could shash his abdomen). Always the canines try to keep on top and never to fall on their backs.

Bears fight chiefly with their forearms, with which they either strike or hug, though they also use their jaws and sometimes their mere weight to crush their foes. Their feet have claws, of course, but they use these comparatively little in fighting; it is the strength of their blow that does the work. (Bears have been taught to wear gloves and box). The great weapon of the bear in fighting with larger adversaries is the hug; once let him wrap his arms about his enemy, and he will break his backbone and squeeze the breath out of him.

#### Horns and Hoofs Are Useful.

Most of the deer and cattle tribes fight with their horns and to a less degree with hoofs. They seldom need to fight for food; but the males fight furiously, chiefly with their horns, against each other for rulership over the cows. And having won the leadership of the herd the victor, aided by the younger males, must defend his big family against all outside enemies. The buffaloes, in days when they were numerous, when attacked by wolves that would not be driven away, would form a ring, horns lowered, within which the calves and cows were secure.

All the big "herbivores" use their horns to repel attacks, but most of them are always ready to take advantage of any chance to trample their foes with their hoofs, which range all the way from razor sharp to crushingly heavy.

# Weeds and Their Control

It is impossible to estimate even approximately the loss caused by weeds to Canadian agriculture. A bulletin recently published in the United States estimates the annual loss due to weeds in that country at more than $300,000,000. Not long ago a western paper stated that the annual loss to farmers of Saskatchewan due to weeds was not less than $25,000,000. If there is this loss in one province, the total in all Canada must be tremendous. There are many districts in the Dominion that stand high in weed production.

Weeds cause a direct, actual money loss such as those due to drought, hail or frost. There is also a loss in depreciation of property badly infected with weeds.

We do not know the full reason why weeds reduce crop yields, but it is well known that weeds deprive crops of moisture, plant food and sunlight, which cause decreased yields. A crop of grain or grass and clover seed which contains weed seeds will not grade No. 1, and there are certain weed seeds which it is well nigh impossible to screen out. Every time a sample of grain or grass seed drops a grade the price is lowered.

Weeds cause much extra work. They must be handled a number of times in a grain crop, and extra ploughing and cultivating are necessary in a weed-infected field if a crop is to be obtained. Net profits are reduced because of increased cost of production and of cheapened product. In a sense, farming is a war on weeds. This warfare must be unremitting and relentless if the farmer is to emerge victorious. Many men make a start to clear their farms of weeds but quit too soon. The campaign is stopped when success is in sight. The plan of attack must be carefully made and faithfully carried out. Every farmer should be his own weed inspector and his own weed eradicator.

Lack of careful planning with reference to weeds is too frequently evident throughout Canada. One man puts in more hoed crop than he can properly care for; another fails to follow a short or systematic rotation of crops; still others fail to give the land sufficient preparation for their crops, or sow seed that is foul with weed seeds. It is because these things have not been given sufficient consideration in the past that the evil conditions of to-day prevail. The weed problem is one of national concern and calls for active co-operation on a large scale. Every member of the community is affected and should lend assistance. Farmers, weed inspectors, owners of vacant property, township and county councils, and governments should work together if weeds are to be held in check.

The problem is how to get rid of weeds and keep them out. First, follow a short rotation of crops; cultivate the land thoroughly and often; prevent weeds going to seed; clean all seed before it is sown.

If the grain field is weedy, seed it heavily to clover and grass; mow the annuals and biennials before they seed, and pasture closely to keep down perennials; follow by a hoed crop or smother crop and most varieties of weeds will be checked.

## Fish That Growl.

A fish that growls and meows like a cat is found in certain parts of South America, Africa, and Australia.

It looks much more like a snake than a fish. It has lungs, and is obliged to put its head out of water to breathe. Lung fish, as these creatures are called, are a link between reptiles and fish—the nearest kind to the original stock from which snakes and fish both sprang.

One reason why these strange fish have been preserved thousands and thousands of years after their prehistoric ancestors were extinct is because they can live easily through long droughts. Alligators and their African cousins, the crocodiles, are almost the only enemies they have to fear except man.

Their rich salmon flesh is highly prized by the Indians, who go after them with spears.

In the natural state, the African lung fish is about eighteen inches long, but when kept in aquariums and fed the year round, instead of lying dormant for lack of water, they grow to be two feet and half long and weigh six pounds or more.

It is a fact that there are fish which cannot swim. A Brazilian fish, called the maltha, can only crawl, walk or hop. It has a long, upturned snout, and resembles to some extent a toad. The anterior fins of the maltha are quite small, and are in reality thin paws, which are of no service for swimming.

#### Caught!

"Only fools are sure of anything," asserted the argumentative husband.

"Oh, I don't know that, dear," reasoned his wife.

"Oh, don't you?" he retorted. "Well, I do. I'm jolly well sure of it!"

And the little woman simply smiled and went on with her knitting.

The cardinal's hat, probably the most elaborate and expensive piece of headgear in the world, is worn once only by its exalted owner. This is when he is first presented at the Pontifical Court. Afterwards it hangs above the altar of the private chapel of his eminence until his death, when it is buried with him.

> If God had intended man to go backward, He would have given him eyes in the back of his head. —Victor Hugo.

## The World's Smallest Screws.

The smallest screws in the world—those turned out in a watch factory—are cut from steel wire by a machine, but as the chips fall from the knife it looks as if the operator were simply cutting up the wire to amuse himself. No screws can be seen, and yet a screw is made every third operation.

The fourth jewel-screw is almost invisible, and to the naked eye it resembles dust. With a glass, however, it is seen to be a small screw, with 260 threads to an inch, and with a very fine glass the threads may be seen clearly.

These tiny screws are four one-thousandths of an inch in diameter. It is estimated that an ordinary thimble would hold 100,000 of them. About 1,000,000 are made in a month, but no attempt is ever made to count them.

In determining the number 100 of them are placed on a very delicate balance and the number of the whole amount is calculated from the weight of these.

The screws are then hardened and put in frames, about 100 to the frame, heads up. This is done very rapidly, but entirely by the sense of touch, so that a blind man could do it as well as the owner of the sharpest eye. The heads are then polished in an automatic machine, 10,000 at a time.

For carpenters a work-bench has been invented which can be folded and carried in a tool-chest.

The new Welland ship canal is the third to be built between Lakes Erie and Ontario. It will be 25 miles long, and will have seven enormous locks, with 30 feet of water for vessels 800 feet long and 80 feet wide. It is an undertaking of magnitude second only to the Panama Canal.

# Responsibility of Parents

Marked results of lack of thought and indulgence in the training and discipline of the child are evident in the health of children both of the pre-school and school age.

In a day's routine for the average child many habits that promise health and happiness for him can be under the direct supervision of the parents.

Breakfast is a most important meal. Failure to have this meal regularly, with plenty of time allowed for the thorough mastication of the wholesome foods properly prepared, is one of the bad habits that contributes so largely to malnutrition sooner or later.

A good breakfast for a school child should consist of fruit, cereal, toast or roll with milk or cocoa. If the food budget affords eggs for breakfast, they are a valuable addition to the meal, but not necessary if plenty of milk is provided during the day. Such fruits as oranges, prunes, and baked apples are wholesome and easily prepared, and cereals like oatmeal, whole wheat preparations and rice are more nutritious and less expensive than many of the "ready-to-eat" cereals.

If the distance is not too great, it is better for the child to come home for he noonday meal. The walk gives an opporunity for exercise and fresh air and helps to stimulate his appetite. At home the mother can better control the selection of food than at school. However, where the school has a lunchroom managed by a trained dietition a wholesome, hot lunch may be obtained at small cost, and in this case it may be advisable for the child to buy his lunch. Should the school lunch or sandwiches brought from home be supplemented with a hot soup or drink from the lunchroom, the mother should inquire of what the lunch consisted, so that she may correct bad habits, if necessary, and plan the evening meal accordingly. The importance of ten to fifteen minutes' rest after the noonday meal should be emphasized. Running to school, strenuous exercise, is no aid to digestion.

After the closing of school there should be time and opportunity for play and recreation out of doors, if the weather permits, and rest before the evening meal.

Children under ten years should not be given meat more than once a day, and then perferably at the noon meal. A typical, good evening meal for a child under ten might consist of a cream vegetable soup, a baked potato or cereal, bread and butter and milk. A simple dessert like custard, baked apple, rice pudding may be given in place of potato or cereal, and a vegetable may be wisely included.

After the evening meal the child may study, read or play quiet games for an hour, and then prepare for bed. The importance of rest cannot be too strongly impressed upon parents. Every child under ten should have ten to twelve hours of sleep in a well-ventilated, dark and quiet room, and children over ten should be encouraged to sleep at least ten hours.

> If a man stumbles, here's my hand; if he lies down, there's the door.—P. C. Deeble.

Horses, mules, zebras and the like strike with their fore feet and bite and tear with their jaws—until they get a chance to turn around and deal a knockdown blow with their heavy heels. After this they trample their prostrate foes. Of course neither horses nor cattle can really fight against a big cat that lands fairly on their backs.

The skunk—well, the skunk has its own means of defence, and the least said about it the better.

The camel and the llama, under sufficient provocation, will hurl at their annoyer a "spit-ball" of semi-digested food, whose effects are not so lasting but are scarcely less unpleasant than those of the skunk's effusions. And, of course, the elephant will at times squirt a very wet and very forcible stream of water at one who displeases him. However, he prefers to do real fighting with his tusks, his trunk, or his heavy feet.

#### Feed on Victim's Blood.

Musks, ferrets, weasels, and the like seem to kill not for food, but merely for the love of killing. In reality, however, they kill recklessly because they live on the blood rather than on the flesh of their victims—and blood is a very small part of the bulk of any animal. They are very deadly foes, for they are slender enough to go nearly anywhere and they are very strong, very quick, and very fierce.

The kangaroo fights with his feet. He sits up, as the bear does, but he strikes with his hind and not his fore feet. His claws are sharp and his muscles strong; and when he lands he is likely to rip and to stun his enemy.

Birds of prey are naturally fierce fighters, because, like beasts of prey, they win their food by fighting. Most of them fight chiefly with their feet, for all of them possess sharp claws, controlled by mighty muscles, that clutch and tear and strangle their victims.

Most birds (other than birds of prey) fight with their bills; and anyone who has been pecked by a cross, setting-hen can testify that the hint to go away delivered by a hard bill is a forcible one. The males of some species of birds are also armed with spurs, which they use with deadly effect against each other and sometimes against much larger foes.

## Diving for Ducks.

One of the most extraordinary tribes in the world are the Agaiambu of New Guinea. They are duck or web-footed people, whose feet are so tender that they cannot walk on dry land.

They live in huts built on ten-foot poles in the midst of marsh, and are so much at home in the water that they seem "to stand upright in that element without any perceptible effort," says Captain Monckton, in "Some Experiences of a New Guinea Magistrate."

They never leave the morass, the skin of their feet being so tender that they bleed freely when they try to walk on hard ground.

They catch duck by diving under them and catching the birds' legs, while their diet consists chiefly of fish, water-fowl, sago, and the roots of water-lilies. They keep pigs swung in cradles underneath their houses, lying on their bellies, with their legs stuck through the bottom, and feed them upon fish and sago.

The dead are "buried" by being tied to a stake, "the body secured well above flood level."

Asbestos was known to the Romans two thousand years ago.

## Joy of the Thinker.

No man has earned the right to intellectual ambition until he has learned to lay his course by a star which he has never seen, to dig by the divining rod for springs which he may never reach. In saying this I point to that which will make your study heroic. For I say to you in all sadness of conviction, that to think great thoughts you must be heroes as well as idealists. Only when you have worked alone, when you have felt around you a black gulf of solitude more isolating than that which surrounds the dying man, and in hope and in despair have trusted to your own unshaken will, then only will you have achieved. Thus only can you gain the secret isolated joy of the thinker who knows that long after he is dead and forgotten, men who never heard of him will be moving to the measure of his thought,—the subtle rapture of the postponed power which the world knows not because it has no external trappings but which to his prophetic vision is more real than that which commands an army. And if this joy should not be yours still it is only thus that you can know that you have done what it lay in you to do, can say that you have lived and be ready for the end.—Oliver Wendell Holmes.

## Forestry Department at B.C. University.

An important recent development in forestry is the inauguration of a Department of Forestry in the Faculty of Science, University of British Columbia, under Prof. H. R. Christie. A five-year course will be given, during the first two years of which the instruction will consist of general arts and science subjects, as in the cources in chemical, mechanical, mining and civil engineerng. During the last three years, the student will specialize in forestry, this being definitely recognized as a branch of the engineering profession. Prof. Christie was for a number of years in the British Columbia Forest Branch, also with the Canadian Engineers in France. He is a graduate of the Faculty of Forestry, University of Toronto. The establishment of the new School of Forestry at Vancouver should mean much in the future development of forestry work in the western provinces, particularly British Columbia, which has had to bring her forestry experts from outside the province. The existence of progressive forest faculties is largely responsible for the progress of the forestry movement in Canada.

## Not the Coal We Know.

Do you know there exists such things as an island of coal, coal-fish, cole-seeds, cole-worts, coal-tits, and coal-mice? A little explanation.

The Isle of Coal, or Coll, or Col—whichever you like—consists of one large rock in the Hebrides, the Western Isles of Scotland. Its surface is covered with a layer of earth, so thin as to admit of but little cultivation. It is about thirteen miles long by three miles wide, and belongs to Argyllshire.

Coal-fish are a species of cod, so named from the color of their backs, and they abound around the Orkneys. The cole-perch is a small specie of the common perch.

Cole-worts are a specie of cabbage, which grow wild on the sea-coast, sometimes called kail. Cole-seeds, like the foregoing, have nothing in common with coal. They grow on waste grounds, in cornfields, or anywhere, are a kind of cabbage, and are used in the manufacture of soap.

Coal-tits are small birds of Scotland, with black heads, while coal-mice are small, black-headed tit-mice.

Practically all of the hard labor done in Bombay, India, is done by the women of that country.