

Bees Are Masters of Art of War

Did you know that the bee is a past master in the art of war? Did you know that every hive of bees is so thoroughly organized that its entire population of 50,000 to 100,000 responds almost instantly to a call for conflict whenever an invader approaches?

The authority for this information is Michael W. Barrett, Boston's bee expert, internationally known as the "bee king" and reputed to be one of the foremost authorities on bees, both from the theoretical and practical standpoint, in America.

Mr. Barrett has been studying and experimenting with bees for forty-five years—ever since his boyhood days. He went to the United States from Ireland at the age of 7 and has since made his home in Boston. For years he traveled through America and Europe with a "circus" composed of more than 100,000 bees. His bee farm is in the Hyde Park section of Boston in a meadow for thousands of visitors.

"Next time you go near a bee hive look closely and you will see several bees fly around in a wide circle," says Mr. Barrett. If you made an effort to approach closer to the hive some of the bees in this group would attack you and the rest would hurry to the hive to warn its entire population of the approach of an invader. If you continued to walk towards the hive an army of thousands of bees would swarm out of it to attack you.

"The bees constantly fly about outside the hive are sentinels, or outposts. They are the exterior unit of the bees' superior fighting organiza-

tion. This organization, as my research work has proved conclusively, has its vanguard of shock troops, its regular fighting legions, its chemists, engineers and a hundred and one other kinds of units that go to make up its fighting force, just the same as a nation of humans."

Investigation in the warfare of bees has convinced Mr. Barrett that no sort of an animal small enough to enter their hive is a match for them. The mouse, for example, always fights a losing battle when he enters a beehive. If the animal remains in the hive a few seconds he is stung enough times to kill him. The body is too heavy for the bees to drag out. So the body, for sanitary reasons is sealed over entirely with wax.

It is not an unusual thing to see a mouse or other small animal completely sealed over with wax on the floor of a bee box when the cover is lifted," said Mr. Barrett.

In discussing the safeguards, the precautions bees take to protect themselves and their homes, Mr. Barrett says:

"They are not satisfied with outside guards. Inside the entrance a squad is maintained constantly. They are flanked by a squad of fighting bees, prepared to give battle at a moment's notice."

When a powerful invader appears the whole hive joins in the fight against him. Each bee has a certain duty to perform under such conditions. The bee knows instinctively what the task is and precisely when it should be taken up."

—AND THE WORST IS YET TO COME



Personal Tid-Bits.

The Amerer of Afghanistan finds his chief amusement in cooking and is said to be a better chef than those in his palace kitchens.

Lord Leverhulme sleeps in a cage in the open air, both winter and summer, being convinced that fresh air is one of the chief necessities for health.

Captain Amundsen, the famous explorer, suffers terribly from the cold when he is at home. On his expeditions, he says, he scarcely notices it.

When Sir James Barrie is in a bad temper he puts on his hat the wrong way round!

Mr. Hilaire Belloc, the author, once served in the French army as a gunner.

Lord Incheape, the shipping magnate, first worked in a rope and canvas factory.

When he was practising at the Bar Lord Birkenhead was accustomed to work from five o'clock in the morning until past midnight.

The Borrowed Dress Suit.

Many a man has borrowed trouble when he borrowed a dress suit. But sometimes a man has to borrow; in such a case he should choose wisely and shun the kind of suit that Dr. W. S. Rainsford once borrowed when the Dowager Duchess of Grafton invited him to meet her nephew.

My father, says Dr. Rainsford in his autobiography, had accepted for me, and it never had occurred to him that the limited resources of my wardrobe could not possibly meet the requirements. Evening dress could be hired if you knew where to go, but none of us did.

Father had a happy thought! Why should I not go in his old evening suit, the one in fact that he had been married in? Well, we found the old broadcloth suit, which age had colored bottle green, and I put it on. Mother was doubtful; father was hopeful, and I was miserable! It was woefully short in the arms and back and so tight in the chest that I was afraid to stand up. But what better could any one of us do?

The dinner was small, and my hostess, who was gracious and tactful, was bent on putting me at my ease; the nephew was much too great a "swell" to take any notice of me other than politeness to his aunt made necessary. I was beginning to forget my clothes when my very forgetfulness brought about the catastrophe. As I leaned forward in the middle of the dinner to answer a question of my hostess, with a dull but quite audible rending the wretched coat burst asunder from collar to tail! I really wonder how I did it. I have muddled many a critical situation since then, but that, terrible time I did the right thing and did it at once. "Duchess," I said, "it is my father's wedding coat. I have not any evening suit of my own, and I had to put it on or refuse your most kind invitation."

All joined at once in a kindly general laugh, and everyone including myself forgot the coat, and I had a very pleasant evening. Till her death the Dowager Countess of Grafton was one of my warmest friends.

The Legend of Orange Blossoms

A tale is told of how a Spanish King once prized an orange tree that grew in his garden.

Now the King's gardener had a lovely daughter Janine who loved a Spanish nobleman but could not marry him because she had no dowry.

There came one day to the court a French Ambassador who coveted the orange tree, but the King refused to give it to him.

Janine, eavesdropping, overheard the conversation. That night she crept under cover of darkness into the garden, plucked a branch of the coveted tree and bore it to the French Ambassador. As a result, the Ambassador gave her a purse of gold.

So Janine was married and on her wedding day wore a coronet of orange blossoms.

Waiting.

Serene, I fold my hands and wait,
Nor care for wind, nor tide, nor sea,
I rave no more 'gainst time or fate,
For, lo! my own shall come to me.

I stay my heart, I make delays,
For what avails this eager pace?
I stand amid th' eternal ways,
And what is mine shall know my face.

Aseep, awake, by night or day,
The friends I seek are seeking me;
Nor wind can drive my bark astray,
Nor change the tide of destiny.

What matter if I stand alone?
I wait with joy the coming years;
My heart shall reap where it hath sown,
And garner up its fruit of tears.

The waters know their own and draw
The brook that springs in yonder heights;
So flows the good with equal law
Unto the soul of pure delights.

The stars come nightly in the sky,
The tidal wave comes to the sea;
Nor time, nor space, nor deep, nor high
Can keep my own away from me.

—Written by John Burroughs, the famous naturalist.

Where Coldness is Cordiality.
Winkleton, the bore, had gone. The whole family recognized him as a bore, but Mrs. Taskett knew what was incumbent on her as a hostess famed for her courtesy.

"My dear Beryl," she said, in a gently chiding voice to her pretty daughter, "I think you cannot have realized how cold your tone was when you said 'Good evening' to Mr. Winkleton."

"No, mother, perhaps I didn't," admitted Beryl, "but I am sure, on the other hand, that neither you nor father had any idea how warm your tones were when you said 'Good night' to him."

London's annual dish of meat is about 400,000 tons.

Sunshine and Shadows.

In the spring when the days are just beginning to be warm how pleasant it is to walk out in the bright sunshine! All round you the fields are golden; all nature is cheerful. Then suddenly there is a change. The earth turns dull, and the air is chill. It is as if the happiness had suddenly gone out of the world.

You realize in a moment what has happened, and instead of stopping to examine the cause you turn your eyes up toward the cloud that has drifted between you and the sun. In a little while it has gone by, and you see the big shadow flitting across the fields and watch the plowman in the distance turn his eyes upward just as you turned up yours.

Why is it that in life we often look downward when shadows darken our pathway? There is no more reason to do it in the journey of life than in the walk in the fields. A cloud can do no more than hide the sun for a little while; it cannot destroy it. We are not afraid of that. Neither can the clouds of life destroy the brightness of God's face, which shines continuously.

There is nothing really wrong with the world when there are shadows overhead. It is the same world as when the sun is shining. The friends we meet are the same true friends, and duty is the same duty. Moreover, neither clouds of the air nor clouds of the soul can stay long, for they are always moving; and when they are gone life will be as bright as it was before.

Look upward in the shadows, good friends. That is where the sunshine comes from!

Deaf, Not Indifferent.

It appears that solitary elephants, not necessarily "rogues," may be met with in all jungle country frequented by elephants. A "solitary," it seems, is rather fond of taking up his residence in the neighborhood of a village, and helping himself to whatever strikes his fancy.

Elephants in Ceylon have in general acquired a contempt for the presence of the ordinary villager, and will walk through a fence as soon as look at it, and help themselves to growing crops in spite of the owner's presence, his shouts, or his gun. A good deal of this seemingly rank indifference is due to the fact that there are many deaf elephants to be found all over the country. Let an elephant, however, once become aware that he is being hunted, and he becomes as wary and alert as possible.

There is told the story of an elephant that was making havoc among the cattlemen in the great swamp of Diwulan, and had been "proclaimed" for distinction. An official had made a forced march by night in faint moonlight, in the course of which he walked slap into an elephant in a dark, swampy hollow, and he never knew which of them was the more startled, he or the pachyderm. Anyhow, the beast made record time from the jungle, and the man sat down unsteadily to let his nerves recover a bit. Undoubtedly that was a deaf elephant.

The City Boy.

It was in his fourth year that Clarence moved to the country, for the reason that his parents decided that the city was not the place for a growing boy. In this conclusion, however, they had not the approval of Clarence.

During the first day of his stay in the country—a very long day, indeed, by reason of the rain that constantly fell—Clarence was forced to remain indoors. He made many trips to the windows to look out upon the downfall.

"Mother," he demanded, "why isn't any one going by?" This query he repeated many times. Then he shifted to:

"When is some one going by? No one is going by now, either. I want to go back to Toronto," he concluded finally.

"Home, Sweet Home"

Has Cheered Humanity for One Hundred Years.

A Montreal business man on route to Toronto early this spring was overheard saying to a travelling companion: "Last night I went home completely fagged out. I put on my slippers, lit the grate fire, put a 'cello record of 'Home, Sweet Home' on the phonograph, and sat back in an easy chair to rest my brain, body and nerves. Do you know; before the piece was finished, I could just feel a soothing feeling coming over. That old song will never die, will it?"

Many such a compliment has been paid to that song, the one hundredth anniversary of the first public performance of which fell on May 8th, and as such that date was made something of a day in many sections of the English speaking world. This number finds a place in every folio of home songs, from the oldest volumes in our grandfathers' homes to the most recent collections of songs for community singing. It has been sung on the concert platform by prima donnas, from Patti to Galli-Curci. It has been performed by the world's leading violinists and cellists. Almost every boy has chosen it for his first attempt on the mouth organ.

The words of "Home, Sweet Home" were composed by John Howard Payne, who was born in New York City, at 33 Pearl Street. He wanted to be an actor, but his father discouraged it. Young Payne became a clerk in a counting house, tried his hand at journalism, but afterwards, through the assistance of a novelist, he took a college course. His father having got into financial difficulties, Payne left college and went on the stage, of which work he made a great success for a time.

Later Payne went to London and Paris and wandered to other parts of the world. He made good money at times with his writings, but was anything but thrifty. On a dull October day in old London, when he was feeling depressed and the pinch of lack of funds, the words of "Home, Sweet Home" came to him. In 1823 Charles Kemble bought Payne's manuscripts, and among them was a poem, "Clara, the Maid of Milan." Kemble persuaded him to alter this into a libretto for an opera, the music for which was composed by Henry Rowley Bishop. This Payne did, introducing his poem "Home, Sweet Home," and it was produced at Covent Garden on May 8th, 1823. Later he was American Consul at Tunis, where he died in 1852.

Sir Henry Bishop, a Londoner by



Wrote "Home, Sweet Home."

John Howard Payne, author of what is probably the best known song in the world. It was first sung one hundred years ago in Covent Garden, London. The anniversary is being celebrated all over the world. The author was an American.

birth, who furnished the music for "Home, Sweet Home," did not claim that the melody was his own. He announced that the melody was that of an old Calabrian peasant song familiar for generations to the mountain folk of Sicily. Another claim, however, is that Bishop composed the music to meet the needs of a firm of publishers who were issuing a book of national melodies of all countries, and who, lacking a Sicilian melody, commissioned Bishop to write a tune that would pass as a Sicilian air.

Bishop was knighted in 1842. He occupied musical chairs in Edinburgh and Oxford. He was a prolific dramatic composer, producing over eighty operas, farces, ballets, etc. He also won fame as a writer of goss.

The Bank Book Habit.

There is an impressive fact in the Gospel story of the Prodigal Son. The statement "he wasted his substance in riotous living" means more than that he wasted his funds. It implies that he wasted himself. And the most serious phase of all waste is not the waste of substance but the waste of self, of one's energy, capital, the lowering of morals, the undermining of character, the loss of self-respect which thrift encourages and promotes.

Thrift is not only one of the foundation stones of a fortune, but also one of character. The habit of thrift improves the quality of the character. The saving of money usually means the saving of a man. It means cutting off indulgences or avoiding vicious habits which are ruinous. It often means health in the place of dissipation. It often means a clear instead of a cloudy and muddled brain.

Furthermore, the saving habit indicates an ambition to get on and up in the world. It develops a spirit of independence, of self-reliance. A little bank account or an insurance policy indicates a desire to improve one's condition, to look up in life. It means hope, it means ambition, a determination to "make good."

People believe in the young man, who, without being mean or penurious, saves a part of his income. It is an indication of many sterling qualities. Business men naturally reason that if a young man is saving his money, he is also saving his energy, his vitality, from being wasted, that he is looking up in the world, and not down; that he is long-headed, wise; that he is determined not to sacrifice the larger gain of the future for the gratification of the hour.

A snug little bank account will add to your self-respect and self-dependence, because it shows that you have practicality and good judgment, sound horse sense.

To get the "bankbook habit" is to conserve your funds, to protect your character, to bring order into your life and defy the ravages and revenges of time.

Why not start the habit to-day? No matter how few your dollars at the start—make the start. The possession of a bank account, however small, gives a wonderful sense of independence and power. The consciousness that we have a little ready money adds greatly to our comfort and increases a hundred per cent. our assurance and self-confidence.—O. S. Marden.

Lord Sleeps in a Cage.

Lord Leverhulme, the eminent English philanthropist, sleeps in a cage in the open air, both winter and summer, being convinced that fresh air is one of the chief necessities for health.

The wisest habit is the habit of never being foolish.

:: A Billion Dollars at the Bottom of the Sea ::

A BILLION dollars at the bottom of the sea!

Half of it at least has lain there for longer than a century—prate plunder deep in mud, almost-coveted timbers of Spanish argosies, wrecks of Peruvian treasure ships; besides which millions of unsalvaged dollars from wrecks more recent.

Will the sea forever keep this toll of gold?

Perhaps. Each of the last fifty years almost has seen some effort to drag this wealth from the infinite stronghold of its captor. Some one has estimated that more money has been spent in these mostly vain efforts than the sum of the whole treasure. Yet each year the ingenuity of the treasure hunters and their allies, the scientists, have developed new implements to aid in making the sea disgorge its treasures.

We have the long-distance armored diving suit, the submarine and radio. Possibly six or more expeditions equipped with one or all of these agencies will set out to the dozen or more treasure latitudes during 1923. Two have gone already. A few weeks since two naval destroyers left San Francisco to measure the depth of the Pacific; to attempt, in fact, a map of the bottom of this supposedly "bottomless" ocean.

The "Sonic Depth Finder." On board the destroyers were members of the faculty of the Carnegie Institute and a new invention called the "sonic depth finder," a development of that child of the war, the submarine detector. It is with this apparatus, allied to both the seismograph and the

radio, that the scientists will attempt to gauge the fathoms of the Pacific over its whole tract. This, if accomplished, will be of incalculable value to submarine explorers for treasure.

Though the Pacific's share of the sunken gold is said to be nearly half, few have braved the difficulties which it offers to treasure divers. At hardly any given point can its depth be so much as guessed, so far does the bottom seem beyond the longest sounding line. It was not a wholly unreasonable superstition held by those early voyagers that the ocean went through the centre of the earth to its opposite side.

The "sonic depth finder" works by the insertion into the water of a steel disc from which vibrations are sent forth. These vibrations are echoed from the bed of the ocean, and the depth is determined by measuring the time taken for the "sound wave" to travel downward and back.

The other expedition, which cleared New York on January 14, is that of a salvaging corporation, bound for the coast of Chile in the hope of recovering some \$1,000,000 worth of tungsten and copper sunk in 200 feet of water. This wealth of metal belongs to the Chilean Government. It went down with the barges that were conveying it to Valparaiso during an unprecedented storm.

Seventeenth Century Romance.

But even more romantic is the case of the Morgan gold, which lies eight fathoms below the surface of the Caribbean. Students of seventeenth-century history will remember Sir Henry Morgan as the boldest bu-

caner of all that age of dauntless seamen.

It will be remembered also that while Morgan was sacking the Spanish colony of Panama twenty of his crew gathered up most of the lot and made off aboard a Spanish schooner. The freebooting admiral followed in his flagship and when close enough to the schooner set her afire with a shot in her stern. Though close to a small island the renegade pirates were unable to beach their vessel. The blaze reached the magazine and while spars and planks in hundreds of fragments were flying in the air the treasure sank to the bottom. There it has lain since 1671.

This year may see also an acceptance by some one of the standing offer of the Spanish Government to pay 20 per cent. of the salvage to anyone who will raise the sunken galleons in Vigo Bay.

Richest of Treasure Beds.

This is perhaps the richest single treasure bed in the world. To whom-

The year's at the spring,
And day's at the morn;
Morning's at seven;
The hills'de dew-pearled;
The lark's on the wing;
The snail's on the thorn;
God's in His Heaven—
All's right with the world!
—From "Pippa Passes," by Robert Browning.

ever succeeds the prize is \$24,000,000.

In 1702 a fleet of seventeen galleons brought cargoes of three years' accumulation of gold, silver and jewels from the colonies of South America. At the mouth of Vigo Bay a combined Dutch and English squadron lay waiting to attack.

The Spanish convoys were beaten in the battle, but rather than let a prize of \$140,000,000 fall into the hands of enemies and heretics, the Spaniards sank the seventeenth treasure ships.

Six of them sank in shallow water, and years afterward were raised and about \$20,000,000 recovered. But there remain in the bay the hulks of eleven great galleons holding a treasure that, according to official record, is \$120,000,000.

Among countless other prizes is the General Grant, the position of which hulk has but recently been located near the Auckland Islands. The General Grant is worth \$15,000,000, and as much may be said of the Florentina, still sunk off Tobermory Bay, Scotland—richer prizes either than the Lusitania.

A thrilling business for any one this treasure hunting. There is always the element of doubt and danger and possible disappointment, even when one goes hunting in rivers and lakes.

Ontario Treasure Hunt.

There was the incident at Penetanguishene, only last summer. A dredge and several divers were taken to the Wye River to locate the chest of gold dropped there in 1650, when the canoe of two Jesuit missionaries was overturned. It was known to have contained among other things a set of

gold altar candelabra presented to the Huron Mission by Louis XIV.

One morning it was announced that the chest had been scoured by a magnetic diving rod invented by Edward Jeffrey, one of the expedition's leaders. An excited crowd gathered on the banks to see the treasure brought up. A movement of the dredge, however, caused the first attempt to fail, but the hearts of the divers beat high with hope. The dimensions of the object sounded were precisely those of the lost treasure chest.

Four days later the thing was sounded again. Captain Bob Carsor, got himself into a diving suit and went down. About a half hour later he returned with a moss-covered object about two feet square by a foot and a half thick.

It was a rock.

"Up anchor," howled the captain in disgust, when he had seen it. "Get us out or here!"

There is, on the other hand, the record of the British salvaging crew, which in three years raised 400 vessels from which was recovered \$250,000,000.

Porto Rico Prize.

If the Jesuit treasure chest was a myth—which has not yet been proved—there remains the Santa Margarita, another Spanish treasure ship, sunk off Porto Rico and worth \$7,000,000. In 1895 a number of Harvard men definitely located the wreck of the galleon. But their yacht was itself blown upon the same rock that sank the Santa Margarita, and after narrowly escaping with their lives the young men abandoned the adventure,

Salt Springs of Northern Alberta.

Salt, which is such a vital necessity of our everyday life, has always been a plentiful and cheap commodity in Canada, says the Natural Resources Intelligence Service of the Department of the Interior. In no place, however, has it ever been cheaper and more easily obtained than in the vicinity of Fort Smith, in Northern Canada. Here the Hudson's Bay Company, the various missions and other inhabitants of that district secure their yearly supply simply by gathering it up into sacks and packing it away. The source of this salt is a number of salt springs, which are located along what is known as the Salt River, on the boundary of the new Wood-Buffalo Park. This park has been recently created by the Dominion Government to provide protection to the only remaining herd of wild wood buffalo.

When millions of buffalo roamed freely over practically one-third of the continent extending all the way from Mexico to the Mackenzie River district this locality was a common meeting ground for the buffalo, whence they came to lick up the salt. It was no doubt while following the trail of these majestic animals that the white man first became aware of the existence of these salt springs.

Sir Alexander Mackenzie, on his voyage of exploration through the district in 1789, located and reported upon these salt springs, and Daniel William Harmon, of the Northwest Company, wrote in his journal in 1808, "About sixty miles from this (Chippewyan), down Slave River, there are several places where almost any quantity of excellent, clean, white salt may be taken with as much ease as sand along the seashore. From these places the greater part of the Northwest is supplied with this valuable article."

These springs have always been a source of supply of salt for the white inhabitants of this district and the lower Mackenzie valley. The native Indian is not and has never been a user of salt to any appreciable extent. The water from these springs carries an almost saturated solution of pure salt, part of which is precipitated as soon as it comes in contact with the atmosphere, with the result that mounds of salt from three to five feet in depth and in some cases 100 feet in diameter are to be found at the mouths of the springs.

R. C. McConnell, of the Geological Survey, in his report of his explorations in this district in 1887, mentions several salt springs draining into Salt River, near Fort Smith, and says that the salt is remarkably pure.

The deposits vary in size up to 150 tons. From three to five tons are collected annually. The salt has also been tested by both the Department of Mines at Ottawa and the University of Alberta at Edmonton, and has been reported upon as being practically pure. The deposits were recently visited by officials of the Natural Resources Intelligence Service, Department of the Interior, while exploring the present habitat of the wood buffalo. The area in which these salt springs is 290 miles north of the present terminus of the Alberta and Great Waterways railway and is reached by way of the Athabaska and Slave rivers, lying to the west of the latter river from fifteen to twenty miles in a straight line. Their economic value at present is restricted because of the distance from the outside market and railway transportation. They have, however, a very important potential value in the settlement of this district and particularly in the eventual development of the fish industry of Athabaska and Great Slave lakes, which contain some of the finest fish on the North American continent.

Northern Alberta, however, has many other salt deposits, the most notable of which, from the standpoint of possible commercial development, are those at McMurray, near the end of steel of the Alberta and Great Waterways railway. According to test borings made by the Alberta Government in 1915 and 1920, there is from twenty-five to forty feet of rock salt of commercial value at a depth of 631 feet. At least fourteen feet of this deposit occurs in the form of transparent, colorless rock salt. This boring was made to a depth of 685 feet. It is reasonable to expect, from the conditions at the bottom of the boreholes, that there may be even a greater thickness of rock salt below the depth reached.

Omitting the salt used for the gulf and sea fisheries and for chemical industries Canada in 1921 used 44 pounds of salt per person. A conservative estimate therefore, of Alberta's salt consumption might place it at 25,000,000 lbs. With almost an equal consumption in each of the adjoining provinces, Saskatchewan and British Columbia, a ready home market is available for any development which may be undertaken of these deposits.

Blood passes through the heart at the rate of seven miles an hour.

The development of electrical science and manufacture is rapidly increasing the use of electricity both for industrial and domestic purposes. In some countries this development may cause a power shortage and consequently considerable increase in the cost of power but so far as Canada is concerned this eventuality is a remote one, since only about seven per cent. of her available water-power resources, as have been developed.