Quick Change Garden Artists

By P. B. Prior, in "The Humane Pleader."

The days have gone when men found it easy to believe stories of human beings changing itno wolves or fish and birds and all he srange metamorphoses of the old legends and fairy tales. Yet all around us insects are making changes just as surprising all day and every day.

What could be less like a caterpillar or grub than a butterfly or moth? The caterpillar is an ugly, often repulsive creature with an enormous appetite, which crawls slowly along. The butterfly is the spirit of light and life, free as air to fly to and fro and living usually on a few sips of the juice of flowers. Yet every butterfly was a caterpillar once.

Cicadas are creatures of the sunshine, which "sing" through the hottest day, perched in some bush or tree. Yet in their grub stage they spend long periods, years in some cases, in darkness underground.

Many insects are truly amphibious. Like frogs they spend part of their lives in the water and part in the air. Such are the dragon-flies, the mosquitoes, which the dragon-flies eat, May-flies and caddie-flies. Like tadpoles the larvae of dragon-flies have gills.

Most of these insects prefer fresh water when in their laval form, but some mosquitoes breed in pools of salt water along the margin of the sea. There are also marine (or submarine) caddie-flies, the larvae of which make cases out of Coraline seaweed, and are found in many places along the coast of Australia.

Some insects, such as bees and ants, build up highly complex city civilizations. They have brought division of labor to a fine point, have well-marked social classes and show wonderful ingenuity, resource and readiness to sacrifice themselves for the good of the community.

In numbers and variety, of course, the insects easily surpass all the other inhabitants of the earth. The human population of the globe is still well under 2,000,000,000, but insects swarm in numbers past all reckoning. There are thousands of thousands of them to every human being.

Ants, bees, and wasps are by no means the only building insects. There are, for instance, the caddie-flies—which I have already mentioned—and some other insects, these spend the early part of their life in the water, and the later in the air.

Most of the caddie-worms build for themselves portable houses or cases under water. They make them out of sticks, leaves or grains of sand. Others more ambitious make fixed houses out of tiny pebbles. And there are nomadic caddie-worms which build no houses at all, simply stroll about on the bottom.

When their time comes to change into caddie-flies the creatures leave the water and spend the rest of their life in the upper air. The males of one species are snow-white, and are sometimes seen flying together in thousands in upland districts.

Most caddie-worms live in fresh water streams and waterholes, but there is a marine caddie-worm which makes cases out of odds and ends at the bottom of the sea.

Dragon-flies have not much in common with caddie-flies except their double life. They, too, live in the water when young, and in the air in later life, when they have acquired wings.

Though dragon-flies are sometimes called "horse-stingers," they do not sting horses, or anything else. They are indeed very useful creatures, since they eat quantities of mosquitoes and other insect pests.

Many of the larvae of dragon-flies breathe by means of gills. Like the caddie-worms they leave the water later, and fly about as winged insects.

Some species of dragon-flies are exceedingly swift of flight; in fact, it is claimed that they are the fastest insects in the world. They dart up and down streams at tremendous speed. Dr. R. J. Tillyard, who wrote a book about dragon-flies, devoted some attention to timing their flights, and came to the conclusion that the insect of one species can do nearly 60 miles an hour. There are many species of birds that probably do not go as fast.

Some Australian dragon-flies grow to a great size. One of them, found in mountain country in New South Wales, measured 6½ iches across the wings, and is one of the largest dragon-flies in the world.

Hawks Fly South

Ottawa—Apparently choosing for themselves the role of vanguard to the trade delegation for South America, a party of Canadian hawks recently made a trip to Argentina. According to word received at the National Parks Branch of the Interior Department, the flight of these adventurous spirits was cut short by a blast of birdshot on a farm in Buenos Aires Province. The nationality of the birds was established when an Argentine farmer, not recognizing the hawks as on a good-will tour, let go his shotgun into a tree. On the leg of one of the trail-blazers was found a celluloid ring, red on the inside and black on the outside, marked "50 Canada." The band is of a type used in Canada for identifying birds.

PETRIE BARGAINS

½ Ton Differential Chain Hoists with 28' of Chain . $ 8.50
1 Ton Differential Chain Hoists with 32' of Chain .. $10.50
Cord Wood Saws, Angle Iron Frame Ball Bearing, Complete with Saw $60.00
10"—3 Square English Files, Bastard or Second Cut, ea. 25c
12"—3 Square English Files, Bastard or Second Cut, ea. 30c
4"—3 Jaw Universal Geared Scroll Chucks, with 2 Sets Jaws $10.00
25 lb Anvil and Vise ..... $ 4.00
50 lb. Anvil ..... $ 5.50
75 lb. Anvil ..... $ 8.25
Forges, 18" diameter, One Piece Steel Hearth, Complete with Fan $11.50
Ball Bearing Post Drill, drills 0-⅝" holes to centre of 11½ circle ..... $ 9.50
5½" Jaw Stationary Machinist Bench Vises $10.00
6¼" Jaw Stationary Machinist Bench Vises $12.50

ELECTRIC MOTORS AND GASOLINE ENGINES, BELTING, PULLEYS, HANGERS, SHAFTING, NEW AND USED, AT SPECIAL PRICES.

H. W. PETRIE, LIMITED

Phone ELgin 1271 147 FRONT ST. W. Toronto 2

Thimble Will Be Coal Bin of Future

Liners Will Race Across Atlantic Consuming Only a Lump of Coal

Our grandchildren may store their whole winter's supply of fuel in a thimble. Today even our most efficient heating systems and our best machinery waste 99.9999999 per cent. of the fuel they use. Nature knows how to make the fullest use of fuel, but this is one of the secrets that science has not yet wrested from her.

Every day the sun gives out light weighing 300,000 tons. Yet he has been doing this for millions of years, and will go on doing it for millions more. If the sun produced light as wastefully as we do, he would have become a burnt-out cinder long ago.

AN AMAZING POSSIBILITY

Speaking the other day at the Worlds Power Conference, in Berlin, Sir Arthur Eddington gave an indication of what might happen when man had discovered the secret of sun-atomic energy. Then a teacup could contain the whole of the fuel required to run the largest power station for a year. The worlds biggest liner could voyage at top speed across the Atlantic and back again by consuming a piece of coal the size of a currant.

It is believed that we may possibly tap this mighty energy if we can find a way to produce temperatures far exceeding those we know now. Water boils at 100 degrees centrigrade, and the temperature of white-hot steel is between 2,000 degrees and 3,000 degrees. At the Cavendish Laboratory a temperature near 1,000,000 degrees has already been reached, but to release sun-atomic energy something like 40,000,000 degrees may be necessary.

If this can be done it is an astonishing thought that the end of the world may be postponed by man himself. Even if the sun burns out and ceases to give heat and light, he may be able to produce sun-atomic energy and prolong the existence of the world from a matter of millions to billions of years.

Kennedy & Menton
421 College St., Toronto
Harley-Davidson Distributors
Write at once for our bargain list of used motorcycles. Terms arranged.

NO SNOW ON THE BOARDWALK

HOTEL STRAND

Atlantic City, New Jersey

Sends Greetings to its Many Friends in Canada.
We are quoting such a very low American Plan rate that you will find it cheaper to stay at the "Homelike Strand" than staying at home.
Write us so we may quote them to you—so you will know the exact cost before leaving.
Music—Salt Sea Baths—Complimentary Tea Daily, 4 to 5 p.m.—We will personally see to your comfort.

T. E. LANDOW, Mgr.
H. BRADFORD RICHMOND, Prop.

Wisdom

Give of body, give of mind,
Give of words, and where you find
Hunger feed it from your bone,
But always keep your soul your own.

Give your laughter, give your youth,
Give of reason and of truth,
And the innocence of play,
And a lilac bough in May.

Let no man turn from your door
Wearier than he was before;
But in wisdom this is known:
Each man's soul must be his own.

—Gertrude Callaghan in the New York Times.

Radio Bargains

Good Used 5 Tube Radios Priced from $5 up. Write for Bargain Price List.
DANFORTH RADIO CO. LTD.
2086 Danforth Ave., Toronto

REGULAR PAINS ?

SOME women suffer more than others. Often, when there isn't any need! The pains peculiar to women may be relieved as readily as other pains for which Aspirin is intended. These tablets are always a big help at such times, and never the least bit harmful. (Aspirin does not depress the heart.)

Of course, you are familiar with the use of Aspirin for headache. It brings such prompt relief that sudden headaches needn't upset your plans. It will check a cold, or ease the sorest throat; and comfort the worst sufferer from neuritis and neuralgia.

When your head aches—from any cause—when a cold has settled in your joints or you feel those deep-down pains of rheumatism, sciatica, lumbago, take Aspirin and you can count on real relief.

BAYER ASPIRIN

TRADE-MARK REG'D
Made in Canada

Owl Laffs

The week's most embarrassing moment occurred when a literary minded fellow looked up his favorite big word in the dictionary just to prove that he was spelling it correctly and at the last report hadn't been able to even find the word.

To succeed in the future, you must break with the past.

There are many ways a woman can catch a husband but being a widow is the surest. We never waste any sympathy on a woman who complains that her husband is no longer tender, when she knows he is hard boiled because she keeps him in hot water most of the time. The boob is usually a fellow who doesn't see things the same way you do.

Nothing looks so much like wasted energy as a couple of pretty girls kissing each other.

"Daddy, I know how to do everything," said the little boy of five.

"What I don't know isn't worth knowing,' said the young man of twenty.

"Well, anyway, I do know my own a short lifetime," said the man of sixty-five.

"There are very few matters, I am sorry to say, that I am really quite sure about,' said the man of fifty.

"I have learned a bit, but not much, since I was born; but knowledge is so vast that one cannot become wise in a short lifetime," sai dthe man of sixty-five.

Customer (indignantly) — "Surely you are not wiping the plate with your handkerchief, waiter?"

Waiter—"That's all right, sir; it's only a dirty handkerchief."

A tooth paste that removes the film from the teeth may be all right, but what we need more is a hair oil that will remove fog from the brain.

It was summer time and a farmer was showing his new laborer around the farm, at the same time explaining to him all the duties he would have to do. When the farmer had given a list of the numerous duties required, the laborer paused a little and said:

Laborer—"What about cleaning all that snow from around the house?"

Farmer—"What are you talking about? There's no snow at this time of the year."

Laborer—"No, but by the time I've done all the jobs you have laid out for me to do, there will be."

Harold, so we are told, got a wrong number the other evening.

Anxious Young Man (at Salvation Army Headquarters)—"Do you save young girls?"

Salvation Nell (kindly) — "Why, yes."

Anxious Young Man—"Well, save me a couple of red-heads for to-night—will you?"

The average woman grows old just about as gracefully as he climbs a fence.

Jimmy, four, small but wise, had been in the company of visitors the day before. At one period, when his mother had left the room for a minute or two—just long enough to get the iced tea iced—one of the guests had asked him where he was born. He was telling the story, next day, to a playmate, about what he had said when asked that question. "I knew I was born in the Woman's Hospital. But I thought that sounded sort of sappy, so I said the Cubs' Baseball park."

The ice man says Mrs. Jones isn't as friendly as she used to be. She wears such a Frigidaire.

A man said the other day: "You can find anything you want to know about in a World Almanac—if you know where to find it."

If we believed what their opponents say, we would conclude that all candidates are unfit to hold office.

Ane way to avoid the income tax is to earn less than $1,000 a year.

Rainy Night

By Daniel Whitehead Hicky

This is a night for long rememberings.
Light up the fire and watch each ripening spark
Drift like a firefly where the chimney sings
With all the purple mystery of the dark.
This is a night for books. Turn to a page
That throbs with Aprils that were lost; go deep
In folded letters yellowing with age;
A night of rain is not a night for sleep.
Pile up the hearth with cedar boughs and listen
To silver music flashing on the pane;
Speak long-forgotten words, and they will glisten
Wrapped in their vanished glory once again.
Turn back the clock, and till the break of dawn
Your heart will beat with hours that are gone.

The brave man carves out his fortune, and every man is the son of his own works.—Cervantes.

40 Years Service

William Fulton, assistant general passenger agent, Canadian Pacific Railway, stationed at Toronto, was guest of honor at a dinner given him by brother officials at the Royal York Hotel, January 24, in honor of his forty years service with the railway completed on that day. Joining the railway January 24, 1891, Mr. Fulton, at one time or another, met most of the C.P.R. men who have made Canadian history in the colorful years of the railway's growth.

Paper's New Rival

Experts have recently been investigating the durability of paper, with a special view to the preservation of books and records of historic value.

According to a recent report made in England on this subject, issued by a special committee set up by the Library Association, paper made from chemical wood-pulp is more permanent than that made from esparto. The very best paper is the all-rag variety.

A new competitor, however, is now taking the field. This is "letter cloth," which looks like ordinary writing-paper of the best quality, but is said to be stronger and more lasting than paper.

Letter cloth is made from cotton and is being produced in America at a cost slightly below that of good quality paper. According to British experts, it could be made more cheaply in England and it is probable that its manufacture will be commenced shortly.

Profits from Comfort

Comfortable working conditions make for efficient service.

This was not the opinion of our fathers, who believed that "pampering" the workers would encourage them to take their ease.

Opinion about this has notably changed. The Industrial Bulletin of Arthur D. Little, Inc. (Cambridge, Mass.), notes the significance of a changed attitude of industrial executives as shown in their recent adoption of scientific methods in improving the physical condition of employees. It goes on:

"Miners are treated with short-wave light to supply sunlight deficiency, with reported improved health, fewer accidents and, incidentally, reduced net operating costs.

"An English firm has found that special spectacles have increased the efficiency of textile inspectors an average of 20 per cent.—the spectacles are supplied even to girls with normal eye-sight, a corresponding correction being made for others. The end of the working day no longer finds them exhausted by long-continued eye-strain.

"Humidity control in a blade factory reduced accidents from cut fingers to an almost negligible number. The dryness of the inspectors' fingers was found to be the major factor."

A book is good or bad according to whether it makes us want to do better or worse.

Hairdressers MAKE BIG MONEY

Classes are now forming under the personal direction of Mrs. Robertson. Write for free booklet regarding terms. Robertson's Hairdressing Academy Limited, 137 Avenue Road, Toronto.

Scientific Safe

FOR CONSTIPATION
Feen-a-mint

Relief for Colds
BUCKLEY'S MIXTURE
A SINGLE DOSE PROVES IT
Acts like a charm

The Great-West Life Assurance Company

ANNUAL REPORT FOR 1930

Largest Surplus in Company's History

Profits to Policyholders to be continued on same liberal scale

Company's Investments in Unassailable Position of Safety

	1920	1925	1930
Gross Surplus Earned	$ 1,388,897	$ 4,001,919	$ 6,075,327
Assets	37,382,646	73,176,969	129,147,632
Liabilities	35,602,545	70,175,398	124,733,724
Income	10,155,046	19,478,795	28,325,893
New Business Issued	60,579,025	71,914,357	73,931,446
Business In Force	256,850,251	420,406,920	614,405,447
Accrued Profits to Policyholders, not due	2,887,943	7,236,072	10,559,742
Unassigned Profits and Contingency Reserve	1,032,014	2,801,571	4,413,907

T. Milton Taylor
Provincial Manager
36 TORONTO STREET, TORONTO, ONT.

THE GREAT-WEST LIFE ASSURANCE COMPANY
HEAD OFFICE WINNIPEG

A GREAT SOUL

A distinguished characteristic of a great soul is that it hungers for something about it; it aspires, never grovels, because it has gotten a glimpse of the real glory of life.

"Mr. Jones tried to kiss me last evening." "How dared he?" "He didn't. I dared him!"

Deafness Head Noises
LEONARD EAR OIL
RUB IT IN BACK OF EARS—INSERT IN NOSTRILS—PRICE $1.25—AT ALL DRUGGISTS
Excellent for Temporary Deafness and Head Noises when due to congestion caused by colds.

for STIFFNESS
Plenty of Minard's well rubbed in soon sets you right. Bathe the sore part with warm water before you start.
You'll soon limber up!
34
MINARD'S "KING OF PAIN" LINIMENT

There Should Be No Ugly Women!

There are 2 classes of women.
(1) The beautiful, healthy and attractive creatures.
(2) Those pitiful ones who don't know how to make themselves beautiful—rather those who don't know the vital importance of Kruschen Salts to physical perfection and attraction!
Kruschen Salts are a perfect blend of the six vital minerals which Nature ordained, glands, blood, nerves and body organs should daily receive from food if they're to function correctly—and which are impossible to obtain in this age of modern cooking.
Get a bottle of Kruschen—and before the bottle is half empty your complexion should be gloriously smooth and clear. Kruschen clears blood of harmful acids and poisonous waste matter which cause blemishes, blackheads and pimples. Your wonderful new energy will surprise you—mind feels so keen and alert—no more washed-out feeling getting up in the mornings.

Rheumatism Routed. Rapid Relief.

Mr. Arthur Padgett, of Barnsley, writes:—"For the last few years I have suffered with rheumatism, also severe attacks of indigestion. I suffered great pain in the back and tried various remedies without relief. A friend advised me to try at once Carter's Little Liver Pills—this I did and received immediate relief. I am a miner, and I strongly recommend your valuable pills to all sufferers of rheumatism, indigestion and constipation."
Take Carter's Little Liver Pills for sick headache and indigestion. All druggists 25¢ and 75¢ red pkgs.

Every woman has some aim in life, but what she hits it quite another thing.

Classified Advertising

YARN

FOR MACHINE OR HANDKNITTING, "All Wool," "Silk and Wool," "Old Tyme," all colors, 75c lb. up. Samples free. Stocking & Yarn Mills, Dept. T Orillia, Ont.

FEMALE HELP WANTED

LADIES WANTED TO DO PLAIN and light sewing at home; whole or spare time; good pay; work sent any distance; charges paid. Send stamp for particulars. National Manufacturing Co., Montreal.

If baby has COLIC

A CRY in the night. Colic! No cause for alarm if Castoria is handy. This pure vegetable preparation brings quick comfort, and can never harm. It is the sensible thing when children are ailing. Whether it's the stomach, or the little bowels; colic or constipation; or diarrhea. When tiny tongues are coated, or the breath is bad. Whenever there's need of gentle regulation. Children love the taste of Castoria, and its mildness makes it safe for frequent use.

And a more liberal dose of Castoria is always better for growing children than strong medicine meant only for adult use.

Fletcher's CASTORIA

MOTHER OF TWINS HELPED

Restored to Health by Taking Lydia E. Pinkham's Vegetable Compound

Mitchell, Ont.—"I had little twin babies and for quite a while after I was so weak I could not do my work because of pains all the way up my legs at the back. I also had headaches and got very little sleep. I took Lydia E. Pinkham's Vegetable Compound, and soon I was able to get up and do my work. I have taken three bottles and I am fine, do my work without trouble and am gaining in weight and strength. I will gladly recommend the Vegetable Compound to anyone."—MRS. F. STATTON, Box 220, Mitchell, Ont.

ONTARIO ARCHIVES
TORONTO