

CASTOR OIL FOR AIRCRAFT ENGINES

HAS WIDE RANGE OF USEFULNESS IN INDUSTRIAL FIELD.

Making of Transparent Soaps, Furniture Polish, Candles, Fertilizers and Paper Pulp.

A writer in "The Scientific American" dwells on the use of castor oil as a lubricant for the engines of aircraft of all sorts, showing it to be a most important commodity from a military standpoint. He says:

"Extensive experiments carried on by the Allies proved conclusively that castor oil was the lubricant par excellence for fast-running motors for aerial service. Up to a point various blends of mineral and vegetable oils did well enough, but none of these was found capable of answering the supreme tests of sustained flight under a wide range of temperature and of varied atmospheric conditions. Nature, somehow, had endowed the castor oil with characteristics that were singularly and strikingly united, as if the wants of mechanical flight had been curiously anticipated."

Used in Manufacturing.

Alluding to some of the other uses to which castor oil is adapted, the writer goes on to say:

"The other fields of employment are much more extensive than most of us realize. For instance, castor oil figures to a large extent in the manufacture of substitute or artificial leather, which takes the place of natural leather in the upholstering."

"Castor oil is an essential component in some artificial rubbers, and there are various kinds of celluloid which depend upon this product of the castor bean."

"Castor oil furnishes a very satisfactory coloring for butter, and from castor oil is produced the so-called 'Turkey-red oil,' which is an important factor in the dyeing of textiles and in the treatment of the fabrics. One of its largest uses is in the making of transparent soaps."

"Castor oil yields stearic acid, which is superior to stearic acid in the manufacture of candles, and from it also is obtained caprylic acid, which lends itself to the composition of various resins peculiarly suited to the polishing of high-class furniture, carriage bodies and paintings, and is extensively employed in the preparation of vellum, tracing cloth, etc. Caprylic acid plays a part in the production of ethers which are used by perfumers and confectioners. Castor oil is used in the making of certain waterproof preparations, and a liquid disinfectant is obtained from the 'second' or lower grade oil. The oil is an admirable preservative for various kinds of leathers, is extensively used in the leather industry and is particularly serviceable in adding to the service life of leather belts employed in heavy work. Our fingers would not be so effective if it were not for castor oil, and the oil enters into the get-up of a great many adhesive agents."

Extensively Employed in India.

"In the sugar mills of the West Indies, upon the railroads of India and other parts of the Far East and in British shipping circles castor oil has long been used as a mechanical lubricant, efficient, however, it is generally blended. In India the oil has been found to be an economical and superior illuminant—giving a markedly brilliant flame. Indeed, the peoples of India have found ways to utilize the oil and the refuse pomace which may suggest other services here in the future. The pomace contains from 6 to 7 per cent. of nitrogen and a measurable amount of potash, and it is authoritatively said that the castor-seed cake possesses 2.81 per cent. of phosphates. It is therefore easy to understand why the stuff makes an excellent fertilizer."

"In India, too, gas is obtained from a low grade of castor oil and is widely used for lighting. Finally, it has been found practicable to produce this gas from the seed cake after the oil has been extracted for other purposes. Notwithstanding the pretty general belief that the castor bean plant will not be touched by cattle, it is stated as a fact by competent authorities that the leaves, not the stalks, are widely fed to cows in India, and added yield of milk is attributed to this forage. In Assam the foliage of the castor bean is cultivated largely for the purpose of feeding silkworms, and an excellent paper pulp can be made from the plant."

The Way He Made Sales.

I knew a man who had more sheep and lambs than he knew what to do with, and sales were slow. One day he went to town, had a four-page folder printed, got a few envelopes and sent a folder to everybody he knew that he thought would be interested in worth-while sheep or lambs. He did not try to see what big stories he could tell about his sheep when he got up the folder; he just told a plain, clear, matter-of-fact story, describing each sheep in plain language, and giving his price for it. If he had had twice as many sheep he could have sold them all. Now he is doing the same thing when he has cows, pigs or poultry for sale. It works just as well with one kind of stock as it does with another. Nor does a salesman of this kind need to be confined to stock. This plan will sell anything.

FREQUENT HEADACHES

A Sure Sign That the Blood is Watery and Impure.

People with thin blood are much more subject to headaches than full-blooded persons, and the form of anemia that afflicts growing girls is almost always accompanied by headaches, together with disturbance of the digestive organs.

Whenever you have constant or recurring headaches and pallor of the face, they show that the blood is thin and your efforts should be directed toward building up your blood. A fair treatment with Dr. Williams' Pink Pills will do this effectively, and the rich, red blood made by these pills will remove the headache.

More disturbances to the health are caused by their blood than most people have any idea of. When your blood is impoverished, the nerves suffer from lack of nourishment, and you may be troubled with insomnia, neuritis, neuralgia or sciatica. Muscles subject to strain are under-nourished and you may have muscular rheumatism or lumbago. If your blood is thin and you begin to show symptoms of any of these disorders, try building up the blood with Dr. Williams' Pink Pills, and as the blood is restored to its normal condition every symptom of the trouble will disappear. There are more people who owe their present state of good health to Dr. Williams' Pink Pills than to any other medicine, and most of them do not hesitate to say so.

You can get Dr. Williams' Pink Pills through any dealer in medicine or by mail at 50 cents a box or six boxes for \$2.50 from The Dr. Williams' Medicine Co., Brockville, Ont.

Yet Living.

After Meta Deal had gone, Pauline went up to her room and locked the door. She was angry and hurt, and she did not want to see anyone. To think that Meta Deal should calmly ask her for Roy's letter—Roy's last letter, the most sacred thing she had in the world—to read to her club girls! It had seemed like a description almost to have it read in her room; she had done the only thing she could do—she had worn out the thin paper with her wear out, even with her reverent fingering, and she simply had to see it every day! But the idea of suggesting that it be read aloud to a lot of girls who had never even known Roy—Pauline remembered how she had felt when Sadie Cummings walked up to it and read it out the other day. Half-unconsciously she crossed to her desk and read for the thousandth time the words she knew by heart.

"This is to tell you not to worry, dear. I got a few scratches, but nothing at all compared with most of the boys. If you could see their courage—I tell you, it makes life a great thing. When it's all over and we can begin our life, dear, we've got to keep it as big as this. We've got to keep our vision of the divine courage and patience and unselfishness and love hidden in commonplace lives. Of course I don't need to say this to you, of all people! But it is a joy to write it because I feel as if in this way I were coming a little bit nearer you."

The weak, straggling writing broke

The Ill-Fated Children of the Czar

When Russia entered the war, part of Czarskoe Selo Palace was made into a hospital; the younger daughters of the Czar, Maria and Anastasia, were made the hostesses, and Olga and Tatiana were nurses. I was at the hospital thirteen months, writes Capt. Geraschinsky, and the girls came every day except when they did not behave; often the Czarevitch came, too. We all loved the boy and the girls. You could not have told them from the ordinary children except that they were so well-behaved. When his sisters were not round, the Czarevitch always complained that he was lonesome at the castle.

On one occasion at the front, when the Czar was occupying a simple house, Gen. Suchomiloff, the minister of war, came into the room where the Czarevitch sat drawing pictures with colored pencils. The minister did not pay any attention to the boy. It is customary to ask permission before you may sit down in the presence of the Czarevitch. When the boy's governess came in to ask what he wanted for lunch, the Czarevitch stood up, spoke to her, and when she left the room turned to the general and said:



THE KING IN SCOTLAND.

His Majesty, wearing Highland costume, inspecting the guard of honor of the Seaforth Highlanders at Ballater. Lord Aberdeen, former Governor-General of Canada, is seen walking behind the King.

there, and then a line was added: "A bit tired. Think I'll take a nap. My love, dear, forever."

He never had wakened from that nap. Forwarded with the letter was one from his nurse. "He will be an endless inspiration to all of us who knew him," she had written. "I wish I could make you understand what his mere presence and his example of courage and cheerfulness have been to others in the ward!"

The old, overwhelming grief swept the girl. It was not for herself, she sobbed; it was not! It was because the world needed him so. He would have made such a wonderful surgeon since—less wild, less flippant, blundering and crudely, but honestly, reaching out for better things, Pauline sat there, trying to think out this new, hard thing. Did she really want Roy's life to go on in the world, or did she want to keep it for herself alone, sharing its beauty and its inspiration with no one else? That was the question. At last Pauline rose and went to the telephone.

"Is that you, Meta?" she called. "Meta, I've been thinking about that letter. I was selfish. I see that now. You may read it to your girls."

The Only Way.

Mrs. Clymer was giving a little dinner, and her housemaid left without notice during the morning.

In despair the good lady tackled her new cook.

"Jane," she asked, tearfully, "what shall I do? Can't you wait at table?" "Not in the dining-room," was the cook's firm response. "But I've had some canteen experience, so if you'll line up your guests and send them out here with their plates I'll see that they get all that's coming to them!"

Did you ever notice that the man who whines and the man who wins are not the same?

KEEP CHILDREN WELL DURING HOT WEATHER

Every mother knows how fatal the hot summer months are to small children. Cholera infantum, diarrhoea, dysentery, colic and stomach troubles are rife at this time and often a precious little life is lost after only a few hours illness. The mother who keeps Baby's Own Tablets in the house feels safe. The occasional use of the Tablets prevent stomach and bowel troubles, or if trouble comes suddenly—as it generally does—the Tablets will bring the baby safely through. They are sold by medicine dealers or by mail at 25 cents a box from The Dr. Williams' Medicine Co., Brockville, Ont.

O YOU CHILDREN!

Some of the Answers Given to Questions at Recent School Examinations.

The function of the stomach is to hold up the petticoats.

Pompeii was destroyed by an eruption of saliva from the Vatican.

Six animals—peculiar to the frigid zone—are three seals and three polar bears.

Three kinds of teeth are false teeth, gold teeth and silver teeth.

The permanent set of teeth consists of canines, eight bicuspids, twelve molars and four cuspids.

Typhoid can be prevented by vaccination.

Guerrilla warfare is where men ride on guerrillas.

Three heavenly bodies are the Father, Son and Holy Ghost.

The invention of the steamboat caused a network of river to spring up.

The qualification of a voter at a school election is that he must be the father of a child for eight weeks.

The four chambers of the heart are brain, mind, soul and chest.

The Shocks Near the Top.

As a nation we waste enough corn to supply many Europeans with bread. Much of the waste is due to poor shocking.

By a little care in building the shocks and in tying them high near their tops, good protection is afforded both grain and stover. If the stalks of each armload do not slant in one direction only—toward the centre of the shock—and if the tying is not done high up near the top, the shock is very likely to twist. Tying near the top prevents twisting.

Equal distribution of the armloads of corn around a shock is important. An equal distribution, with all the stalks slanting toward the centre, forms a conical stormproof shock, having each corn-stalk acting as a brace to hold the shock erect. With more weight of corn on one side than on the opposite side, the shock is likely to lean or go down. Twisted and fallen shocks are difficult to handle and to husk.

Got the Job.

Anxious to travel for a big English firm at the ham line, an Irishman obtained an interview with the proprietor.

"What experience have you had?" the Irishman was asked.

"Eighteen months," was the answer. "Eighteen months!" scornfully repeated the proprietor. "What could you learn about bacon in that time?"

Why, I've been studying for forty years and don't know half enough about it yet."

"Bedad," exclaimed Pat, with a confident smile. "If I had been studying it for forty years, I'd know how to make a pig!"

He got the job.

What He Got.

With the idea of being agreeable, the visitor asked her hostess's children what they learned at school.

"I," said the eldest, "get reading, writing, arithmetic and spelling."

"And what do you get, my little man?" said the visitor, addressing the littlest one, who had listened in a bored way while the others ran through their lists of accomplishments.

"Oh," he replied promptly, "I detest readin', spellin' and spakin'!"

It is better to fall in a good cause than to succeed in a bad one. Sheep are used as beasts of burden in northern India and carry 20-pound loads.

Female Help Wanted

Girls and Women coming to Toronto can be placed immediately at work in Factories, Hotels, Restaurants, Institutions and Private Homes. High Wages. Experienced Cooks, Waitresses, Kitchen Help, Housemaids, etc., will find good openings at all times. Write THOMAS & CO., Central Employment Bureau, 6, C. Burnham, Proprietor, 264 Church St., Toronto.

WILD ANIMALS WHICH SWIM.

Monkey is Worst of the Lot, While Jaguar Excels.

Have you ever noticed a gull dropping on to the sea—how it spreads its wings high, so that the feathers shall not be wetted? If a gull's wing feathers get wet it cannot rise until they dry.

Throw a mouse into the water. It can swim a little, but as soon as its fur is soaked down it goes—down. So, too, in the case of a rabbit. As soon as its fur is wet, it is done for.

A mole can swim like anything, but a monkey is very helpless in the water. Almost all land birds drown very rapidly, if unlucky enough to fall into the water. They strike out with their legs, move round and round in a circle, but cannot get off the water.

Lions and tigers are very good swimmers, and do not share the common cat's hatred for the water. But of all the cat tribe, the South American jaguar is the finest swimmer in the water. It seems often to plunge in for mere joy of a swim.

A rabbit, as we have said, drowns as soon as its fur is soaked down, yet curiously enough its near relative, the hare, swims quite well, and will often cross a river when hunted.

Bears are good swimmers, even those that usually live far from large sheets of water, and the common rat is no mean performer.

One of the best of animal swimmers is the horse. Horses have been known to swim a river nearly a mile wide to get back to their old stables. Deer, too, can swim well. There are cases of caribou having swum across lakes ten miles wide when escaping from forest fires.

St. Joseph, Lewis, July 14, 1903.

Minard's Liniment Co., Limited. Gentlemen,—I was badly kicked by my horse last May, and after using several preparations on my leg nothing would do. My leg was black as jet. I was laid up in bed for a fortnight and could not walk. After using three bottles of your MINARD'S LINIMENT I was perfectly cured, so that I could start on the road.

JOS. DUBES, Commercial Traveller.

Good and Bad Reading.

The other day in the papers there was a story telling how a young boy, trying to imitate the hero of a certain lurid "wild west" magazine, hung himself.

The reason was that the boy had probably never been educated at home in the matter of good reading.

In many other homes it is the same. Boys and girls are not told by their parents the difference between good and bad books. And, sometimes, the parents themselves do not know the difference.

Boys and girls should be taught the harmful effects that come from reading such trash as "Wild West," "Deadwood Dick," "Old Sleuth," and so forth. If any boy or girl wants a good Western or detective story he or she can join a library and get plenty of better books than these cheap novels, filled with impossibilities.

There are so many "anti" societies at present that it would be a good idea if some one should organize an Anti-Dime Novel Association or a Good Reading Club and help strengthen, instead of weaken, the minds of some of our future Canadian citizens.

MONEY ORDERS.

The safe way to send money by mail is by Dominion Express Money Order.

When I Like Potatoes.

When I'm walking in the garden, Many fancy things I see; But the common old potato Is 'bout good enough for me.

Take it, say, for Sunday dinner, Or when company comes to eat, All mashed up so light and creamy, It is pretty hard to beat.

And most any way you fix 'em—Baked or fried, and all the rest—I don't know as I could tell you When I like potatoes best.

When you smell the bacon trying, Then I think that dinner-time Is the time to eat potatoes—Fixed with gravy, they are fine.

But at night, when cold and tired Doing chores and cutting wood, Then a great big white potato Baked for supper's mighty good.

And I like 'em fried for breakfast— If I really have my say As to when I like potatoes, It's about three times a day.

Took Time by the Forelock.

Mr. MacTavish attended a party where the hospitality of the host knew no bounds. In the midst of the celebration Mr. MacTavish rose up and made the rounds of the company, bidding each a profound farewell. "But, Sandy, man," objected the host, "you're not going yet, with the evening just started?"

"Nay," said MacTavish, "I'm no gonn' yet. But I'm tellin' ye good-night while I still know ye all."

Minard's Liniment Relieves Neuralgia.



True.

"How did you learn to roller skate?" a little boy was asked.

"Oh," was the innocent but significant answer, "by getting up every time I fell down."

Real Work.

Visitor—"How long has this man worked for you?"

Farmer—"About four hours."

Visitor—"I thought he had been here longer than that."

Farmer—"Yes, he has been here for four weeks."

A Last Resort.

"Is your watch going, George?" the maiden asked sweetly, stifling a yawn.

"Yes," answered George, blind to the hint.

"How soon?"

Cramped.

"The flat suits me very well," said the prospective tenant, "but the kitchen won't do."

"What's wrong with it?" asked the agent.

"It seems to have been cut to fit a woman who weighed about ninety pounds. My wife weighs 200 pounds. She's got to have a kitchen she can bustle around in without getting jammed between the sink and the gas stove."

Would Do His Best.

Sam Hodge came down from the heart of the clay belt mountains with a load of produce.

Sam's ox-team had had a weary two-days' pull, and when Sam reached the city limits he was confronted by a sign which read: "Speed limit twenty miles an hour."

He pulled his whiskers meditatively and then drewled out to his oxen: "Well, I know darned well we'll never make it, but we'll do our doggone best. Gee up, you lazy critters! Gee up!"

Geography in Person.

The school examiner was putting the children through their paces. His immediate subject was geography. Standing in the middle of the platform he said:

"We will suppose this whole school is composed of water, and I am on an island. Now, what island would I represent?"

"The Isle of Man," came a quick reply.

Then, calling the teacher to him, he asked again: "Now, suppose we both stood together like this, what island would we represent?"

"The Scilly Islands, sir," came the answer in a loud voice.

Knocks Out Pain THE FIRST ROUND

Comforting relief from pain makes Sloan's the World's Liniment

This famous reliever of rheumatic aches, soreness, stiffness, painful sprains, neuralgic pains, and most other external twinges that humanity suffers from, enjoys its great sales because it practically never fails to bring speedy, comforting relief.

Always ready for use, it takes little to penetrate without rubbing and produce results. Clean, refreshing. Made in Canada. At all drug stores.

At all drug stores. 35c, 70c, \$1.40.

Sloan's Liniment Keep it handy

THERE IS ONLY ONE GENUINE ASPIRIN

ONLY TABLETS MARKED WITH "BAYER CROSS" ARE ASPIRIN.

If You Don't See the "Bayer Cross" on the Tablets, Refuse Them—They Are Not Aspirin At All.

Your druggist gladly will give you the genuine "Bayer Tablets of Aspirin" because genuine Aspirin now is made by Canadians and owned by a Canadian Company.

There is not a cent's worth of German interest in Aspirin, all rights being purchased from the U.S. Government.

During the war, acid imitations were sold as Aspirin in pill boxes and various other containers. But now you can get genuine Aspirin, plainly stamped with the safety "Bayer Cross"—Aspirin proved safe by millions for malaria, Lumbago, Rheumatism, Headache, Toothache, Earache, Rheumatism, Lumbago, Colds, Neuritis, and Pain generally.

Handy tin boxes of 12 tablets, also larger "Bayer" packages. Aspirin is the trade mark, registered in Canada, of Bayer Manufacture of Monocetic-acid-ester of Salicylicacid.

HELP WANTED.

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

FOR SALE. NEWSPAPER, WEEKLY, IN BRUCE County. Splendid opportunity. Write Box 7, Wilson Publishing Co., Limited, 13 Adelaide St. W., Toronto.

WELL EQUIPPED NEWSPAPER and job printing plant in Eastern Ontario. Insurance carried \$1,600. Will go for \$1,200 on quick sale. Box 62, Wilson Publishing Co., Ltd., Toronto.

MISCELLANEOUS. CANCER, TUMORS, LUMPS, ETC. Internal and external, cured without pain by our home treatment. Write us before too late. Dr. Bellman Medical Co., Limited, Collingwood, Ont.

PIKE GROUP PICTURE IN COLORS. 18x23 inches, containing striking portraits of King George, the Prince of Wales, Premier Lloyd George, Field Marshall Haig, Admiral Beatty, General Currie, Marshal Foch, President Wilson and King Albert, a magnificent, lasting souvenir of the Allies' victory. By mail ready for framing, 25 cents. Write stamps. Sergeant George Moore (late 139th Batt.), 81 Yonge Street.

Egypt's Chief Crops.

Egypt's principal crops are cotton, corn, rice, wheat, barley, beans, sugar cane and leguminous plants, which include clover, lentils and peas. The following figures show the approximate total cultivated acreage of the above crops: Wheat, 1,280,000; barley, 350,000; rice, 220,000; flax, 10,000; beans, 500,000; leguminous plants, 1,650,000; corn, 1,830,000; cotton, 1,720,000; sugar cane, 50,000.

Minard's Liniment Cures Burns, etc.

An Ultimatum.

"Willie," said Mother, consolingly, "you will have to wear one of your sister's nightgowns tonight."

"What, a girl's?" snorted Willie.

"Yes, why not?" asked Mother in surprise.

"I won't wear it," declared the small boy. "I'd rather go to bed raw."

The farmer who does not feed every pint of waste milk on the farm, sweet or sour, is not working for the greatest profit.

GIRLS! LEMON JUICE IS A SKIN WHITENER

How to make a creamy beauty lotion for a few cents.

The juice of two fresh lemons strained into a bottle containing three ounces of orchard white makes a whole quart of the most remarkable lemon skin beautifier at about the cost one must pay for a small jar of the ordinary cold cream.

Care should be taken to strain the lemon juice through a fine cloth so no lemon pulp gets in, then this lotion will keep fresh for months. Every woman knows that lemon juice is used to bleach and remove such blemishes as freckles, sallowness and tan and is the ideal skin softener, whitener and beautifier.

Just do it! Get three ounces of orchard white at any drug store and two lemons from the grocer and make up a quart of this sweetly fragrant lemon lotion and massage it daily into the face, neck, arms and hands.

Hospital records show that every time you cut a corn you invite lockjaw or blood poison, which is needless, says a Cincinnati authority, who tells you that a quarter ounce of a drug called freezone can be obtained at little cost from the drug store but is sufficient to rid one's feet of every hard or soft corn or callus.

You simply apply a few drops of freezone on a tender, aching corn and soreness is instantly relieved. Shortly the entire corn can be lifted out, root and all, without pain.

This drug is sticky but dries at once and is claimed to just shrivel up any corn with soft, inflamed skin, irritating the surrounding tissue or skin.

If your wife wears high heels she will be glad to know of this.

Hurrah! How's This

Cincinnati authority says corns dry up and lift out with fingers.

Hospital records show that every time you cut a corn you invite lockjaw or blood poison, which is needless, says a Cincinnati authority, who tells you that a quarter ounce of a drug called freezone can be obtained at little cost