

Every day is PURITY-FLOUR-DAY with cooks who are satisfied with nothing less than the flakiest pastry and finest bread.



PURITY FLOUR

"MORE BREAD AND"

SOLAR WATER HEATER

Placed on Housetop and Water is Heated by Rays of Sun

Through the ingenuity of two young plumbers, it is now possible to have warm water in a house that has not a boiler in it. The apparatus which accomplishes this is known as the solar water heater, and its name indicates its operative principle. A coil of flat pipes of very thin metal, resembling a radiator, is set in a wooden framework which is mounted on the roof of the house. Two pipes lead down from this coil into the house, one of them bringing the water up



PIPES LEAD INTO HOUSE.

from the source of supply and the other carrying the heated water down into the bathroom or whatever room it is wanted for. The rays of the sun upon the metal coil heat the contents of the coil to a temperature high enough for most purposes, except on cold winter days.

Thunder Director

A scientist at the Lyons, France, observatory has perfected an appliance that detects thunder storms 300 miles away, the apparatus being an adaption of the wireless telegraph.

Small But Mighty

Though only one-tenth of an inch in diameter, a new steel wire for aeroplane guys has tensile strength of 350,000 pounds to the square inch.

POSSIBILITIES OF OUR CARIBBEAN EMPIRE

Amazing Areas and Trade Opportunities of West Indies and Adjacent British Territories

In Britain's West Indian Empire British Guiana is incomparably the largest unit and covers 90,277 square miles. Next in size comes British Honduras, with 7,562, after which rank Jamaica, 44,50, the Bahama 4,424. The area of the other colonies is: Trinidad and Tobago, 1,974 square miles; Dominica, 304; St. Lucia, 233; Antigua, Barbuda, Redonda, 170; Turks and Caicos, 169; Barbadoes, 166; St. Kitts, Nevis and Anguilla, 152; St. Vincent, 150; Grenada, 133; Virgin Islands, 50; Montserrat, 32. The total area of all the above is 110,249 square miles. If we remove British Guiana and British Honduras, the islands, which are, strictly speaking, the British West Indies, are only 12,410 square miles.

The total population of all the area, continental and insular, was returned at the 1911 census as slightly over 2,000,000. Here Jamaica stands easily first, with 331,233; Trinidad coming next with 333,552. British Guiana has all but 300,000; British Honduras, 40,372. Barbadoes, with 171,933 to its 166-square miles, is one of the most densely populated places in the world, having 1,032 to the square mile. The other islands range from 5,000 odd to 68,000 odd.

Rich Resources Unused

The main reason for the present comparative paucity of population is, of course, that such large portions of the West Indian area remain unused and undeveloped. In Jamaica, for instance, out of an acreage of 2,126,411 (part from Crown lands), only about half, namely 1,013,025 acres, are returned as being fit all under care and cultivation, and of these only about 274,000 acres have been subjected to tillage, the other 739,917 acres remaining "grazing lands," but slightly different very often from the 1,114,283 acres that are left in undisturbed woodland and "ruinate."

Great Potentialities

Trinidad, measured by its trade and products, ranks very much higher than does Jamaica, for, while less than half the size of that island, it has a trade which in 1913 (the last normal year) amounted to \$48,838,358, against Jamaica's \$25,284,735; but when we pass to British Guiana we find that a colony that is 45 times the size of Trinidad has a total trade of only \$18,658,918 and, as we have seen, a population of only 296,041, against Trinidad's 383,552.

Yet British Guiana contains 57,770,000 acres, of which only 2,000,000 are privately owned, leaving 55,700,000 unalienated Crown lands. In the lowland easily accessible by railway or by navigable rivers out of some 10,000,000 acres there are some 7,000,000 suitable for agricultural purposes, of which only 1,000,000 acres have been disposed of, leaving 6,000,000 yet to be taken up and used.

GROCCERS MAY COMBINE

Want Federal Government Start An Inland Trade Department

The creation of an inland trade department of the Federal Government, which will have control of all mercantile trade in the Dominion, was the request of a delegation of wholesalers and retailers which waited on Premier Borden. Mr. Hugh Blain addressed the Government during the conference with wholesalers, arguing the unfairness of legislation prohibiting a producer or manufacturer from stipulating the price at which his products shall be placed on sale by the wholesale trade, when compared with the treatment meted out to other trades and professions. Mr. Blain denied the existence of combinations in the grocery trade, and declared that there is nothing to conceal or suppress. Financially, it is claimed, the wholesalers carry a large percentage of the retail merchants, who, in turn, carry their reliable customers through sickness or unemployment. The proposal to prohibit the setting of prices was characterized as illogical and insane, as to disturb conditions which are essential to the welfare of the country would be a blunder.

THOUGHT WAVES MIND TO MIND

Here Are Some Instances That Seem to Prove Sir Oliver Lodge's Theories of Mind-reading

"That thought can be transferred from mind to mind, even through vast distances, is not a mere supposition; it has been proved time and again," asserts Sir Oliver Lodge, the world's leading psychic investigator.

Take the case of Mrs. Joan R. Severn, Brantwood, Eng., reported to the society for physical research. One morning she was awakened, feeling that she had had a hard blow on her mouth, and with a distinct sense that she had been cut, and her upper lip was bleeding. She was not hurt at all, but in a few minutes her husband, who had arisen early, came in. He had been sailing, and had been struck by the tiller. His upper lip was swollen and had bled profusely.

Albert Tonks was in South Africa, far from telegraphic or postal facilities. One morning he was in the

ployer, PROF. J. M. Redmayne, and said: "My mother died this morning; the last thing she said was, 'I will never see my Albert again.'" Six weeks later a letter arrived telling Tonks of the death of his mother. She



A MOTHER'S MESSAGE—



—REACHES HER SON

had died the same morning he had received the mental message, and her last words were correctly quoted.

Mrs. Frederick L. Lodge (not related to Sir Oliver Lodge) was traveling on a train from Derby to Leicester. At 3.30 p.m., a telegram appeared before her eyes. On it was "Come at once, your sister is dangerously ill." She had had no idea of her sister being ill, in fact, she had not been thinking about her, but of her small daughter, whom she had just left at a boarding school. When she returned home she found the telegram with those words. At 3.30 p.m. a friend of the family was writing the message at a telegraph office.

Mrs. Agnes Paquet, lived in England. She had not heard from her brother, Edmund Dunn, for a long time, until one morning she saw (mentally) her brother wearing a blue sailor's shirt, falling over the rail of a boat. She heard his cry for help. Some time later she received a cablegram from Chicago saying that Edmund Dunn had drowned from a tug-boat in the harbor.

Sir Oliver Lodge explained the case in this way. When she was going overboard, he was already was thinking intently of his nearest relative, his sister, hence the thought transference. A similar explanation covers the other cases, he says.

Gets Potatoes Earlier

Speaking on potato seed, the method adopted by Mr. Tizzard, a potato grower in old Ontario, is worth mentioning. He puts the potatoes intended for seed under the bench in his greenhouse on a dry board along about Christmas. The stock has light and air, but no moisture. So kept, the seed develops short, hard sprouts that do not break off in handling, and these sprouts root as soon as set in the ground. Mr. Tizzard secures a crop ten days earlier than he otherwise would by this method of preparing and preserving seed.

How can the provincial agricultural colleges be made useful in the highest degree to all the farmers without the aid of the rural school?

FARM FOR PROFIT

Farmers, What About Your Side Lines?

A farmer writes: The farm without a side line is not, practically speaking, good farming. The man who has nothing to sell but "just wheat" may make good money for a time, but if he thinks he is selling wheat alone he is wrong, for he is also selling some else's fertilizer, and I think you would travel a long way in this country to find the man who would do this. I have lots of side lines but none of which are on a very extensive scale, really each line can be considered very small, yet each one is worked so as to bring in good prices, and we do not market these unless we get a good figure. There is always a time nowadays when farm products will fetch a good figure, in fact what is generally considered a fancy price.

Take the larger items into consideration, such as live stock. Usually a man must have a good big bunch, in fact, a carload to realize to the greatest advantage, but if a man will catch his chance and his markets, I can realize big profits on several head, yes, and even on one beast, or he may co-operate with his neighbors and make up a good shipment. Wheat is my greatest product, but it is chiefly grown and sold for seed; therefore, has to be re-cleaned, and gives me more chicken feed than I can use for my own poultry. This I keep till the following summer and invariably get a good price.

Oats are always a special crop and by growing these on good ground I always have choice seed, of which I have never been able to supply enough to meet the demand. So with the barley, but it is not as profitable as oats except as feed on the farm. This generally leaves lots of feed for home use, and a few cattle and hogs well fed will make big returns out of the screenings and any surplus feed. I aim to get my steer or steers shod right along to be in extra good shape at two and a quarter years old, and kill them myself. Good, fat, young heaves will always bring top notch prices either in country or town. People will, or rather do, prefer to off the farm in preference to purchasing it from the butcher's shop, that is, those that can purchase by the quarter. With hogs, no matter how much more meat I have than is required for home consumption, I kill them at home and make the most of it into bacon, and it is very seldom that I have enough to supply demand at a high figure. It is much better, as a general rule, than what is found on the butcher's counter, and as it will keep indefinitely I hold it until I get my price. We sell eggs when these are a good or fair price, and eat them when too cheap, and usually have some for winter market.

WAR CHANGES MIGRATION

Migratory Habits of Birds Changed Since War

A French correspondent writes: War has made great changes in the habits of European birds. A convoy of pheasants heralded the naval battle of January 24, 1915, and pheasants have also been known to give warning of Zeppelin raids over the eastern counties of England. In normal times nearly all birds of passage used to pass over France on their way north or south, but the thunder of the guns has changed all this. The route taken by woodcocks leaving England for warmer climes is across the Channel into Brittany, and Landes to the Pyrenees, and as these birds do not have to cross the war zone, they have kept to their old route throughout the hostilities, but their brethren from Scandinavia and Holland, who used to fly by way of the Aisne and the mud lakes of Champagne, now make a long round by sea and do not touch land until they arrive off the coast of Brittany.

Snipe from Russia and Poland wing their way for sunny climes by way of the western coast of the Black Sea to gain the Bosphorus, or else cross Greece and Roumania. German and Danish snipe go south by way of Italy, and the thrushes escape the shrapnel of the front in France by crossing Switzerland and making for Italy. The wild ducks of the eastern counties of England, which used to fly over the North Sea, have also a horror of battles, and now fly north, then west, and then south again, skirting the coast of Ireland.

The calendar of the migrations, which for thousands of generations has been rigorously kept, has since the war, become more elastic, and some birds, such as the matins, have renounced their return journey to the north and remain in Tunis rearing their young. Owls show no fear of artillery and remain in close proximity to the trenches, which they help to keep clear of rats and mice.

Mental Grasshoppers

Many of us waste fully one-fourth of our time and energy by constantly breaking away from the particular thing we are doing, to do or start something else—to return in a moment or so to finish what we left. We jump—mentally, physically, or both from one idea to another and back again all day long. In most cases this habit can be corrected, it is nothing more than thoughtlessness. And it should be corrected for such persons in office or shop are not only inefficient but have a tendency to disturb others. They are nothing more than grasshoppers.

LETTER DUPLICATOR MADE AT HOME

There are very few people who have not at one time or another been required to send out club notices or form letters to fifteen or twenty people and exhausted both their strength and patience in writing all the letters required. Usually the number of letters to be sent would not seem to warrant the expense of obtaining a hectograph or duplicator.

And such an expense is not warranted. A very serviceable hectograph can be made that costs little or nothing. One ounce of ordinary gelatine should be soaked over night. The water is poured off in the morning. Six and a half ounces of glycerine are then heated in a water bath to a temperature of 200 degrees and the gelatine added.

This gives a clear glycerine solution of gelatine. The mass should be poured into a shallow tray or pan until it is nearly level with the edge of the receptacle. A cover should then be placed over it—but not so it will touch the top of the composition—and the mass allowed to set six hours. It will then be ready for use.

Make copy for your letters with an aniline ink—a good one can be made



with methyl violet two parts, alcohol two parts, sugar one part, glycerine four parts and water twenty-four parts. The violet should be dissolved in the alcohol and mixed with the glycerine, and the sugar should be dissolved in the water and then the two solutions mixed.

Write the copy clearly with this ink. Dampen the surface with your gelatine mass slightly with a wet sponge and lay the copy, face down, being careful to exclude the air bubbles from the surface. Leave it a minute and then raise one corner and pull it off. The inscription on the paper will remain on the surface of the gelatine and as many as fifty copies can be made from it by laying plain paper over it and smoothing it down.

When through wipe off the ink from the surface of the gelatine with a wet sponge and it can be used for another letter. If the gelatine becomes hard heat it and pour it over again.

CANADA'S WHITE ESKIMOS

Strange, Fierce Habits of Humorous Northern Dwellers Described

After passing three years in the Arctic regions, George H. Wilkins, an Australian who was a member of the Stefansson Expedition, arrived in England with a choice selection of stories about the so-called "Blonde Eskimos" with whom he lived a considerable time. "The Blonde Eskimos," he said, "are quite untouched by Western civilization, and their habits and customs are essentially primitive. They are not a long-lived race, and fifty years is perhaps the normal span. Human life is very little valued amongst them, and what civilized people class as murder is regarded as a more or less harmless eccentricity."

Visiting a camp where he had made friends with an Eskimo a few months before and not finding him, Mr. Wilkins inquired after his health. He was told that the man was dead, and the manner of his death was this. One day the Eskimo came across a member of the tribe fashioning a knife out of the native copper which is found in this region. He chafed him, it appears, on his want of skill. "You don't know the first thing about making a knife," he said, in effect. The artificer said nothing until he had finished his work, when, remarking "I think it is a pretty good knife," he plunged it into the breast of the critic. The Eskimos have a keen sense of humor, and this incident was much appreciated.

There is a ceremony of marriage among these Eskimos, but apparently the number of a man's wives is limited only by his capacity to support them. The regular price for a wife is a rifle or 12 months' hard labor in the service of the prospective bride's family. It is only rarely that a rifle can be obtained from the Indians to the south, and the price paid for it, in skins, practically represents a year's activity in hunting. Some of the more opulent Eskimos possess three wives. One is chosen for her personal attractions, another for her prowess as a hunter, and a third does the housework.