

CHEMIST, LIKE MAGICIAN, WITH EXHAUSTIBLE HAT HAS MADE MANY DISCOVERIES

(By Frederic J. Haskin in Boston Traveller.)

Washington — Modern chemical industry has made so many discoveries that it is conceivable that the time will come when people will not think of the old familiar vegetable products as sources of food but as raw material for a thousand complicated processes of manufacture. With people multiplying all over the world a good deal of food will continue to be used, but so huge in the production of the world's fields that there remains a great overplus to be used in other ways.

Nitrogen From Air

Moreover, production is gaining and, presumably, will continue to gain because mankind has learned how to hasten those processes of fertilization which once took ages. Where once generations of forest trees were required to produce the leaf-mold which fertilized the soil, today machinery reaches out into the thin air and conjured from it a ponderable substance which enriches the soil and makes two blades of grass or any other vegetable product grow where one grew before.

Two billion dollars has been spent by the nations of the world in research which finally has resulted in the approximate perfection of the process of fixing the free nitrogen in the air and, so soon as the nation desire to build the plants enough of this material may be taken out of the atmosphere to make the natural deposit unnecessary. For as long as the use of nitrogen has been known, Chile has enjoyed a practical monopoly of the product and all the world traipsed to her ports to obtain the flags of Japan, Germany, Greece, France, Great Britain, Czechoslovakia and Spain were observed in a single American port, flying from the mast-heads of ships all laden with atmospheric nitrogen.

Chemicals and Machine

Nitrogen has many uses. In the form of ammonia it is the chief agent of refrigeration which makes possible the preservation and for shipment of perishable foods. In the form of nitric acid it is the agent for converting the substance from which so many manufactures of the plastic industry are created. Rayon, imitation leather, all the various pyroxylin products, and explosives come from this mysterious substance which, in the first instance, they instantly seize upon it and turn it into anything you like. The lowlier the sort, the better they appear to like

it. For example, the hulls of oats not long ago were flailed out and swept away. Their very name was synonymous with intility—chaff. Now they are used for the manufacture of furfural, a chemical which, in turn, makes furfural acetone, crude and refined resins, rubber composites, and a lot of other things.

Chemists Take Breakfast

Almost every breakfast food is worth more for the making of varnish, pipe stems, brush backs, dishes and a thousand other moulded articles than it is as a breakfast food. It looks as though the time might have come when the people will have to grab their breakfast away from the chemists before they get into the machines. Choice will have to be made between a breakfast and a high Spanish comb.

The application of chemicals and machinery is necessary to produce valuable articles of oathulls and similar waste products in some cases but, in others, a little patience is all that is required. In the proper environment, these products, through the activity of the bacteria they generate, will produce batanol, acetone, ethyl alcohol and the things which can be done with those products would fill a mail-order house catalogue—and do in large part.

Sugar cane has, in the past, been used primarily for the purpose of producing sugar, but nowadays that is little more than a by-product. This fibrous plants lends itself so beautifully to the designs of chemists that he regards its manufacture into sugar as almost a waste. A lot of alcohol is made from it but a larger use has developed in the manufacture of this raw material into wallboard and insulation designed to control the acoustic properties of buildings. Every up-to-date radio studio in this country is lined with sugar cane and the use of the sugar cane in sound-proofing office and residence walls is increasing.

Many Uses for Cotton

Cotton is all right in its place, according to chemists, but its place is not in mere use as cotton. To many other things can be done with it they say. Cotton ranks on a level with Canadian Spruce as a furnisher of just the right sort of fibre for making cellophane which has become an indispensable product. Cotton seed has found a warm spot in the hearts of chemists too. Its oils go into a score of products which have an important

THE QUEEN OF ENGLAND IS KEPT BUSY MUCH OF THE TIME

New York, Nov. 24—It is probable that there is no woman in London who needs her holiday more than Queen Mary, says the London correspondent of the New York Sun.

Certainly there is no woman who takes her duties more seriously.

When you see her driving with the royal retinue to Ascot or opening a bazaar or at some other function she looks rather like a lay figure, very erect, a somewhat chilly smile, a slight bow here and there. Her hat is inevitably a tight-fitting turban, her clothes rich without being smart.

Then someone comes your way who is in the palace circle and you hear how efficient she is in her home as well as her public life, how she has reduced royal expenses in the king's various homes and how conscientiously she studies the various things in which she is asked to interest herself.

Visits Real Work

If she patronizes an exhibition of any sort she does not just walk around life a beautiful, stately fairy queen. She wants to know all about it and her intelligent questions have to be answered intelligently. The gentlemen or ladies who take her around are carefully chosen. If she visits a

place in world markets. They go into food products too.

The average man is repelled by the names of chemicals. He is alarmed when he sees such words as amyl acetate and dibutyl phthalate. Most of the time they are only slightly removed from the cane—brake the cotton plantation or the oil well. For petroleum has only started apparently, upon its career of giving off by-products. It was a long time, it will be remembered, before anyone thought of making gasoline from petroleum and now gasoline is the most valuable product. The chemists continue to pick things out of substances like a magician with an inexhaustible hat. Perhaps the most mysterious thing of all is that the chemists will produce a barrel and a quarter of gasoline from one barrel of petroleum and still have a lot of by-products left over.

The chemist freely admits that he is only on the threshold of exploration of the full scope of his mystery. He does not know himself but must experiment without ceasing. There are step must be in the dark. "Any false no guide books on the road and each ones are taken, many quicksands trod upon but now and again, a new stepping-stone is felt, leading into new worlds.

hospital she goes to all parts of it and wants the routine of it explained to her and she certainly does not suffer fools gladly.

When her early tea is brought she looks over her book of engagements. No matter how many visits and audiences and functions fill the day there must always be some time devoted to her grandchildren.

It is said that Princess Mary was a rebellious daughter when in her teens. She disliked the simple clothes for her and wanted more jewels than her mother allowed.

Now Obeys Queen

But eventually she succumbed to the queen's firmness and now that she is the countess of Harewood she still dresses plainly and rather unbecomingly and wears very few jewels except on state occasions.

The duchess of York who may be queen some day and who is the royalty who gets the most applause and cheers from waiting crowds, found the first year or two of her married life quite different because of her mother-in-law. She is exceedingly pretty, loves attractive clothes and was brought up in a gay and happy atmosphere where she had her own way. She could not have that with Queen Mary but now that she has two small daughters she has more freedom from royal restraint and rigid court etiquette.

In fact, she is charmingly democratic.

"Don't you get tired of doing this?" she asked a newspaper woman at the Breamer games last year, "I should!"

When she drives out in state she smiles happily on all bystanders, waves her hand occasionally while the color comes into her cheeks and her dark eyes sparkle.

BEING AMUSED IN A BARBER'S CHAIR

(New York Sun)

Nearsighted men, forced to doff their glasses, squinting into the mirror as the manicurists pass to and fro behind them.

Not of the times: Many barbers no longer suggest massages shampoos and the rest of the works. Now they say, "Will that be all, sir?" after cutting a man's hair, even if he is obviously in need of a shave, too.

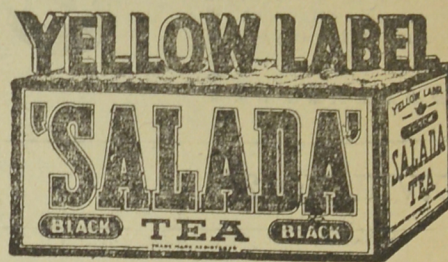
It's always amusing to watch a barber hold a mirror behind the head of a customer and anxiously await his verdict. And the tonsorial artist is acquitted every time.

"That man," whispers our barber, "comes in every day and sleeps while he's being shaved. In case there are no other customers we let him sleep for a while, and if he snores we put a towel across his mouth. Says he can't sleep nights."

FIRE ALARM LOCATION IN THE CITY

- 6 Argyle and York Sts.
- 7 Victoria Public Hospital.
- 8 Children's Home, Woodstock Rd.
- 12 Westmorland and Aberdeen Sts.
- 13 Northumberland and Saunders St.
- 14 Brunswick and Smythe Sts.
- 15 Charlotte and Smythe Sts.
- 16 George and Northumberland Sts.
- 17 King and Northumberland Sts.
- 21 York and Queen Sts.
- 23 York and George Sts.
- 24 Queen and Westmorland Sts.
- 25 Brunswick and Westmorland Sts.
- 26 Charlotte and Westmorland Sts.
- 27 King and York Sts.
- 28 Saunders and York Sts.
- 31 Queen and Regent Sts.
- 32 Needham and Regent Sts.
- 34 Queen and Carleton Sts.
- 35 Brunswick and Carleton Sts.
- 36 Charlotte and Carleton Sts.
- 37 George and Regent Sts.
- 38 King and Regent Sts.
- 43 Aberdeen and St. John Sts.
- 44 Queen and St. John Sts.
- 45 Brunswick and St. John Sts.
- 46 Charlotte and St. John Sts.
- 51 King and Church Sts.
- 52 George and Church Sts.
- 53 Union and Church Sts.
- 54 Shore Street and Waterloo Row.
- 55 George St. and University Ave.
- 56 Lansdowne St. and Waterloo Row.
- 57 Grey St. and University Ave.

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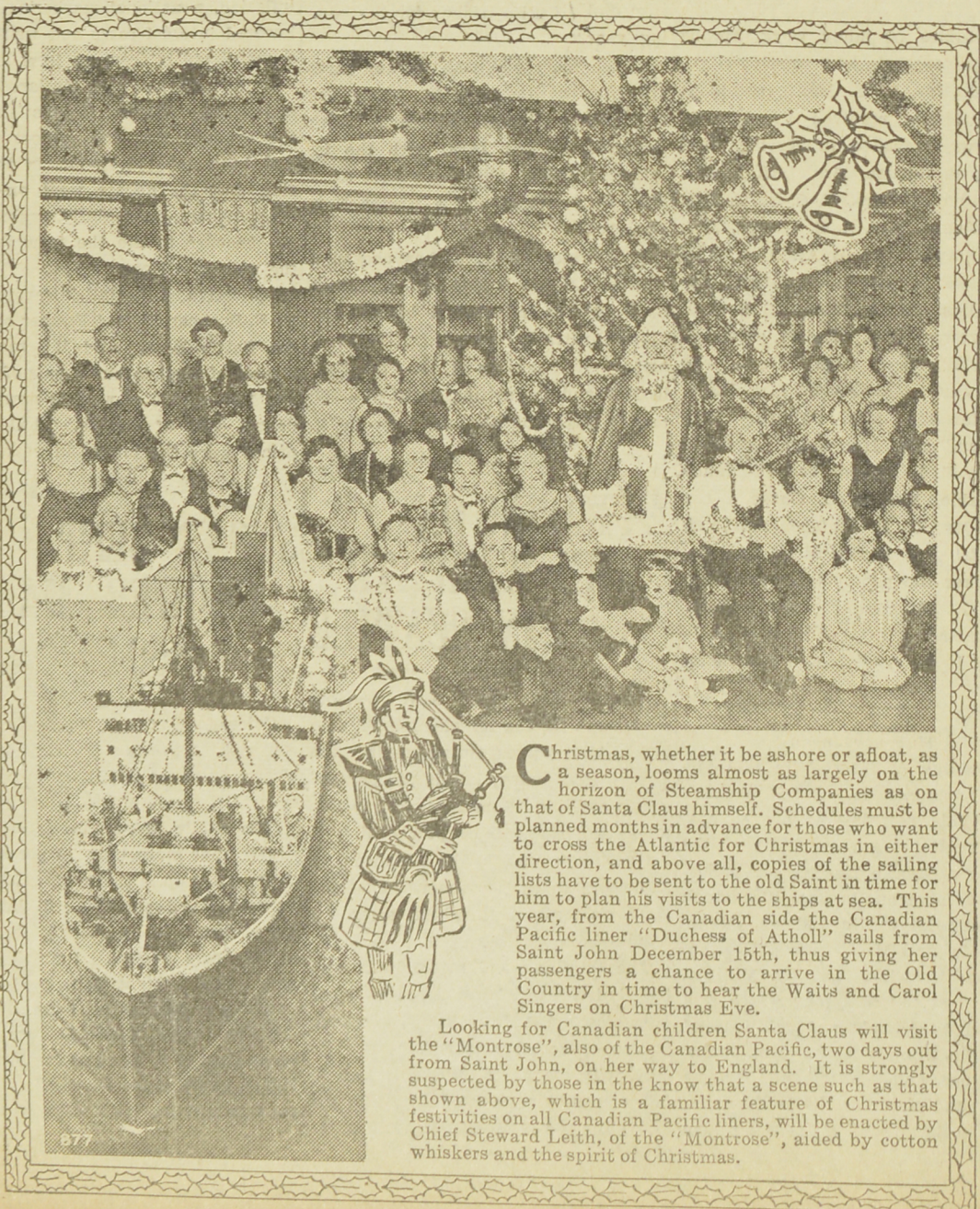
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Christmas, whether it be ashore or afloat, as a season, looms almost as largely on the horizon of Steamship Companies as on that of Santa Claus himself. Schedules must be planned months in advance for those who want to cross the Atlantic for Christmas in either direction, and above all, copies of the sailing lists have to be sent to the old Saint in time for him to plan his visits to the ships at sea. This year, from the Canadian side the Canadian Pacific liner "Duchess of Atholl" sails from Saint John December 15th, thus giving her passengers a chance to arrive in the Old Country in time to hear the Waits and Carol Singers on Christmas Eve.

Looking for Canadian children Santa Claus will visit the "Montrose", also of the Canadian Pacific, two days out from Saint John, on her way to England. It is strongly suspected by those in the know that a scene such as that shown above, which is a familiar feature of Christmas festivities on all Canadian Pacific liners, will be enacted by Chief Steward Leith, of the "Montrose", aided by cotton whiskers and the spirit of Christmas.