What Science Is Doing

SEE THROUGH STEEL

Six inches of steel or two or three feet of aluminum alloy are as transparent as plate glass to the new X-ray equipment developed at the National Research Council laboratories, Ottawa.

The new X-ray apparatus takes an electric current at 600,000 volts through the biggest X-ray tube used for industrial radiography in North America.

MAKING GLASS INVISIBLE

Discovery of a coating that makes glass invisible is announced by Dr. Katharine B. Blodgett, noted woman scientist in Schenectedy, N.Y.

The glass never reflects light from any angle whatever. Clock, dial face and show case glass and windows appear not to exist. An incredibly thin film on both surfaces of glass is the secret of this scientific mirale. The film is about 41 1,000,000ths of an inch, or one-quarter the wave length of light, in thickness.

COBRA VENOM A TONIC

Cobra venom is a mental tonic. The venom is injected into the muscles, once a day or less. Its effects are slower than morphine, but last longer and are not habit-forming.

Direct mental stimulation is also shown, that is, not merely psychic effects due to relief from pain. In addition two other improved faculties were noted: Wider angle vision and better muscular co-ordination.

GAS QUICKLY LIQUEFIED

Professor Peter Kapitza, former director of the Royal Society's Mond Laboratory at Cambridge, now head of the Soviet Government's new laboratory at Moscow, has perfected a new method of liquefying gases. It is announced that this discovery will have great scientific and industrial importance.

Only a few details have been made known, but a vital part of the invention is said to be a turbine of completely original design. It is no larger than a match-box and weighs about half a pound, but has far greater efficiency than the machines heretofore used.

HAVE YOU HEARD

A woman entered the butcher's shop and asked him to cut off ten pounds of beef. He did so.

"Shall I send it, madam?" he asked.

"Oh, no, thanks," she replied. "I've been reducing and have lost ten pounds, and I wanted to see what it looked like."

There was an old man of Colquhoun
Who built an enormous balquhoun.
To his utter surprise
It rose to the skies
And nearly bumped into the mquhoun.

The golf novice had not made much progress, but he was a man of iron determination.

"I'll move heaven and earth to play this game properly," he said, as for the fifth stroke in succession he pulled up the turf.

The caddie smiled. "Well," he said, "you haven't much farther to go. You've only heaven to move now."

"Have you much room in your new flat?"

"Heavens, no. My kitchen and dining room are so small that I have to live on condensed milk and shortbread."

A Negro boy was taking a stroll through a cemetery and reading the inscriptions on the tombstones. He came to one which declared: "Not dead, but sleeping".

After contemplating the phrase for a moment, and scratching his head, the Negro exclaimed: "He sure ain't foolin' no one body but hisself."

"What would the girl of today do if she suddenly found herself in the Middle Ages?" wonders an essayist. Go on pretending that she was only about twenty-one.

"Hair cut, sir?" inquired a barber of a customer whose head was almost bereft of hair.

"No," was the sarcastic retort. "I want it done up in a bun and fastened with a pink ribbon."

Pocket-picking is increasing in Nigeria now that the population is less scantily dressed.

New High-Altitude Land Plane Passes First Tests

Officially known as model-307, Boeing Aircraft Company's 33-passenger "stratoliner" is shown after being wheeled out into the open at Seattle, Wash., for the first time to be prepared for a series of engine tests. The silver four-engined craft is 74-feet long with a 107-foot wing spread, weighs 42,000 pounds and is designed to cruise at 300-miles per hour at a sub-stratosphere altitude of 20,000 feet. Two super-chargers maintain a cabin pressure greater than that of the rarified air outside at that altitude, allowing the passengers perfect breathing comfort at all times. The dirigible-like fuselage is perfectly streamlined without a break even for the windows of the control compartment.

How Can I?

BY ANNE ASHLEY

Q.—How can I detect a leak in a gas pipe?

A.—At the point where a leak in the gas pipe is suspected, apply a paste of soap and water. If there is a leak, bubbles will appear. Never use matches or a flame of any kind when looking for a gas leak.

Q.—How can I remove hot pans from the oven easily and without danger of burning the hands?

A.—A small, short, tin shovel can be purchased for about ten cents. Flatten out the sides of the shovel and it will make an excellent utensil for removing hot pans from the oven.

Q.—What is a home remedy for neuralgia?

A.—The eating of a good quantity of celery is often an effective remedy.

Q.—How can I add just the right amount of stiffening to organdie trimmings, such as collar and cuff sets?

A.—Try dipping them into water in which rice has been boiled.

Q.—How can I give fingernail polish a higher gloss?

A.—When polishing the fingernails, put on the pink or red polish, but leave the tips uncovered, and whiten underneath. Then go over the whole fingernail with a coat of colorless polish. It will give a higher gloss, a neater finish, and will last longer.

English Know Little About Empire Life

Canadian Woman Complains That People of England Are Ignorant of the Geography, Politics, Economics of The Countries in the Empire

A letter to the editor of the Daily Telegraph (Conservative) one of London's leading papers, from an unnamed Canadian woman who complained that the people of England know too little about the Empire drew an editorial admission from the newspaper last week that her allegation is well founded.

The editorial follows:

"There is still too much justification for the friendly remonstrance which a correspondent from Canada makes in our columns today that the English people do not know the countries of the Empire and they should.

Characteristics of Nationhood

"She is not the only visitor from the Dominions who has found us ill-informed about their geography, their politics, and economics, and—the worst defect of all—about the distinctive characteristics of their nationhood.

"Our educational system is still guilty of neglect of the significance of the Empire. Fortunately, however, there are now expanding efforts to send young people of all classes on Empire tours, and interchanges are arranged which may well progressively increase."

When Knives Were Used For Eating

Before the advent of table forks, eating with one's knife was the vogue among society people. Before this it was quite proper to eat with one's fingers. The table knife came into general popularity some time after the seventeenth century and was the correct thing for eating as well as for cutting.

Flying Mail-Van

A "flying mail-van" that picks up and delivers mail at 90 miles an hour is to start operation in Pennsylvania.

Watching a demonstration of the new service post office officials saw a pilot cut down his plane's speed to 90 m.p.h. as he flew towards two 23 ft. poles linked with a rope. Attached to the rope was a dummy sack of mail. The pilot manoeuvred the 'plane downward, picked up the mail sack and dropped another.

The route to be covered by the new "flying mail-van" includes 27 towns and cities.

Important Year In History of Aviation Here

Trans-Canada Airlines Are Expected to Carry Passengers Early This Spring — Significance of 1939 In Transoceanic Flights

The most important year in the history of the aviation industry in Toronto and Canada as a whole is indicated with the beginning of 1939.

During 1938, tremendous strides were made in Canadian aviation and it is during 1939 that these steps are expected to bring the industry in this country to a destination that will be the culmination of much planning and effort.

Experiments Completed

Before the last leaf of 1939 has dropped from the calendar, great liners of the sky are expected to be shuttling back and forth between this country and Europe, winging passengers and mail across the Atlantic. The long process of experiment is practically completed and the whims of wind and the weather above the restless Atlantic are now well known to the men who will pilot the air-giants on their long journeys.

Groundwork Laid

From present signs, it is indicated that 1939 will be no more than nicely on its way before the big metal ships of Trans Canada Airlines will be opening their doors to passengers. The groundwork has been laid, beacons flash along the air routes, radio beams are at this moment beeping away across Canada's bushland, landing fields have been made ready and, last but not least, T. C. A. pilots have become familiar with their routes.

World's Shortest Railway's Here

Between Huntsville, Ont., and Lake of Bays — One Mile, Narrow-Gauge Road — Closed for Winter Months

Ice and snow cover the North Muskoka lakes and the two dinkey engines and other rolling stock of the Huntsville and Lake of Bays Railway Company, the shortest railroad in the world, are laid up in the roundhouse awaiting the opening of the 1939 navigation and tourist season.

The automobile has wrought great changes in the transportation picture of Ontario's playground. Passengers no longer travel in large number over the steep portage from Lake of Bays to Peninsula Lake. But the little train, once known as the "corkscrew limited," makes daily trips each summer over the one-mile, narrow-gauge road.

Built In 1906

Built in 1906 at a cost of $40,000, the road winds around huge rocks and hills, skirts a small lake and climbs an elevation of 130 ft. in a half-mile from Peninsula Lake to Lake of Bays. It runs over an Indian trail that for 100 years was used by the Algonquin Indians in trading throughout the area.

Modern Etiquette

BY ROBERTA LEE

1. What are some of the luck pieces that are put in the bride's wedding cake?

2. Is it all right to introduce two persons by saying, "Mr. Jones, meet Mr. Smith"?

3. When one has accepted an invitation for luncheon, specified at one o'clock, at what time should one arrive?

4. When an established resident of a neighborhood extends an invitation to luncheon or tea, to a new neighbor, doesn't this take the place of a first call?

5. When checking out of a hotel is it all right to phone the desk and ask that your bill be ready, in order to save time?

6. Should a girl wear an evening dress to a dance when she knows that her escort is going to wear a business suit?

Answers

1. A shining dime for riches, a thimble for the old maid, a tiny ring for the first to be married, a very small wishbone for the luckiest girl, a button for the old bachelor, and miniature dice for the lucky man. 2. No. One should not use an imperative form. Merely say, "Mr. Jones, this is Mr. Smith." 3. About ten minutes before one. 4. It does not. The call should be made first, before extending any kind of invitation 5. Yes; by doing this fifteen minutes before leaving your room it will save time. 6. No; her costume should correspond with that of her escort.

Says New World Was "Civilized" Before Old One

Scientist Claims Plants Were Domesticated and Cultivated In America Before Dawn of European Civilization

Human civilization, as measured by agricultural development, is older in the "new world" than in the "old world," Dr. Donald D. Brand, the University of New Mexico, anthropologist, contended this week.

Evidence Found by Botanists

"If the beginnings of agriculture mark the dawn of civilization, then evidence collected by botanists and anthropologists indicates an earlier civilization in the new world than in the old," he said.

Dr. Brand said that "unlike the wheat, and most other domesticated plants, maize (Indian corn) requires cultivation for its propagation and scarcely an old world species of plant can compare with the maize, field pumpkins and kidney beans in the area of its spread at the time of Columbus."

In Mexico and Central America

"The greater variety of squashes, maize, kidney beans, manioc, potatoes and other cultivated plants cannot be matched in Eurasia or in Africa."

"The prehistoric inhabitants of Mexico and Central America domesticated more plants than the inhabitants of any comparable area in the world," he said.

Of the 620 drug addicts in the United Kingdom known to the government, 132 are members of the medical profession, a report to the League of Nations shows.

WAITING FOR YOU!

In town is your copy of this week's Toronto Star Weekly — don't forget it.

Issue No. 2 — '39

Canada's Mud May Have Great Value

Southern Lakes xpected to Yield Pure Silica, Worth Millions of Dollars

Mud worth millions of dollars has been discovered in the northern United States by Paul Conger, of the U. S. National Museum.

The mud looks like ordinary muck, but really is made mostly of diatoms, microscopic marine animal shells which are pure silica.

Dr. Conger said he found this kind of mud in 64 lake bottoms and bogs in Northern Wisconsin. When the mud was dried and the organic matter burned off, the residue was commercially valuable "diatomecious earth." This earth is used for fine filters, such as sugars and fruits, for heat insulation, tile-making and many other purposes.

Study of the Wisconsin lakes, Mr. Conger said, shows that similar diatomaceous muds will be found in lakes of Southern Canada as well as Minnesota, Michigan, New York and New England.

Hydro System In Northland

Will Be Extended With Help from Ottawa Government in Patricia District

Hon. W. L. Houck, acting chairman of the Ontario Hydro-Electric Power Commission, announced last week the Ontario Government had approved by order-in-council the construction of a new 113-mile power transmission line in the Pickle Lake district of Northern Ontario.

Work For Unemployed

The line is being built particularly to meet increasing requirements of the Pickle Crow and Central Patricia gold mines. It will be extension of a line being built from Earl Falls to supply power to the Uchi gold mines. Estimated cost is placed at $937,000 and the line will be constructed to operate at 68,000 volts.

The project will be undertaken under an agreement reached between the Ontario government and the federal government in respect to aid of Northern Ontario unemployment. Federal government will contribute 50 percent. of labor costs and approximately 500 men will be engaged in cutting the right-of-way for the line.

1938 Field Crops

First Official Estimate Places Gross Value of Canadian Output of 6 Per Cent. Lower Than 1937

The first official estimate of the gross value of the principal field crops grown in Canada in 1938 is $527,149,000, which is $30,968,000 or 6 per cent. below the estimated value of the 1937 production, and $84,881,400 below that of 1936. The value of the 1936 harvest was the highest since 1930 when the value was $662,040,900. Low yields in 1937 and sharply reduced prices in 1938 have resulted in successive reductions in value for the past two years.

These estimates are subject to revision and do not represent cash income received from sales, but are gross values of farm production. Several of the crops, such as mixed grains, turnips, and fodder corn, are almost wholly utilized on the farms on which they were grown.

While the 1938 wheat production is nearly double that of 1937, the average farm price is only 57 cents as compared with $1.02 in 1937. Thus the value of the crop is only about twelve million dollars greater. Increases in the production of oats, barley and rye in 1938 failed to offset declines in prices and the combined value of these crops is $35,694,000 less than in 1937.

Trapping Goes "Streamlined"

Canada's Oldest Business Has Been Transformed By Plane and Radio

Canada's oldest business — trapping—has been "streamlined" through use of the aeroplane and wireless. The swift drama of modern methods has replaced the picturesqueness of the canoe and the portage.

The majority of the estimated 300 to 400 trappers operating in the Northwest Territories and remote Northern regions of British Columbia, Alberta and Saskatchewan now take full advantage of commercial aviation and widespread radio facilities of the Royal Canadian Corps of Signals.

To Civilization In Few Hours

Each fall Edmonton commercial aviation firms carry north nearly 150 trappers, their dogs, canoes, traps and provisions. Throughout the winter aeroplanes call at the trappers' cabins or the nearest post and freight the furs to market. In the spring the modern Coureur de Bois are whisked from the loneliness of their trap lines to civilization in a few hours.

Besides eliminating many weeks on the trail to and from the trapping ground, the aeroplane enables trappers to locate new ground quickly after old lines have been "trapped out."

After an X-ray revealed a stolen ring in his stomach, William Thompson, of Glasgow, Scotland, was sentenced to prison.

"MAKE TRACKS FOR OGDENS!"

Hit the trail right now to more enjoyment from the cigarettes you roll yourself! Slip into any tobacco store and get yourself a package of Ogden's Fine Cut. Then—roll a cigarette with this fragrant, mellow tobacco, touch a light to it and—man! You're there!—you've found the Fine Cut that does roll 'em smoother, sweeter, better. And don't forget—Ogden's rolls best with "Chantecler" or "Vogue" papers.

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