

A LIQUID THAT CAN BOIL AIR AT 119 DEGREES BELOW ZERO AND CAN FREEZE A BANANA VERY HARD

(Philadelphia Bulletin)

Did you know you could take a handful of air and make it into a liquid that can be poured from one glass to another?

A liquid that is colder than anything man has ever dreamed of?

So cold it boils at 319 degrees below zero Fahrenheit? And that when it boils it is still cold enough to freeze anything as solid as a piece of iron?

Well, come with me and see a few feats of magic at the Franklin Institute.

While liquid air has been known to scientists since 1833, it is just now attracting general interest.

Adults, as well as children, sat open-mouthed as C. D. Trout placed a bunch of carnations in a glass into which he poured liquid air from a thermos bottle. The flowers were instantly frozen. They crushed between his hands like thin porcelain, making a crackling noise.

Rubber Ball Shattered

And maybe the audience didn't laugh when a hollow rubber ball was bounced into the liquid and came out so brittle it shattered like glass when grown against the wall. On thawing it was the same as new—only still in pieces.

More laughs accompanied the "frying ice" experiment. Ice cubes, placed in a frying pan over which liquid air was poured, sounded like pop corn as they froze so stiff and cold a torch would have burst your fingers.

Liquid air is clear blue and dry. Which sounds paradoxical. A handkerchief run through the liquid came out perfectly dry.

A coffee pot of liquid air boils merrily when placed on the table, letting off a cloud of frost and fog. Place the pot on a cake of ice and it keeps right on boiling—and the cake of ice cracks from the cold.

Mr. Trout froze strawberries into veritable glass marbles, and a soft rubber tube became as hard as an iron rod, sounding like one when knocked against glass. Unlike iron, it broke easily under a hammer.

Freezing a Gold Fish

Other experiments one can do with this amazing liquid are freezing a banana and using it as a hammer for pounding tacks into wood, or freezing a goldfish so he would break if not handled with care, and then allowing him to thaw out and swim again by placing him in a jar of water.

Research in freezing fish in this way has been done in the hope of finding the best way to transport fish and keep it fresh.

Meat, the despair of those who wish to reduce it to a powder, is easily pulverized by giving it first a liquid air bath.

One of the demonstrator's most striking experiments was "taking the temperature" of his liquid with an ordinary thermometer. It broke and the mercury froze.

Freezing a large piece of mercury.

Mr. Trout used it for a hammer. Mercury freezes at 40 below zero.

The temperature of liquid air is usually recorded electrically. It can, itself, freeze. All you have to do is cool it down to 373 degrees below zero with an air pump.

Used in Industry

Liquid air has many commercial applications. The largest single use is in the commercial production of oxygen, which involves the liquefaction of air and its fractional distillation.

The oxygen thus derived, of which there are millions of cubic feet made each year, is used in conjunction with acetylene, coal gas or natural gas for cutting steel and for welding steel, cast iron and other metals.

Liquefied oxygen is sometimes carried by aviators to supply the oxygen needed by man and occasionally by engines at very high altitudes.

THE FISHERIES CASES DECIDED

Newcastle, July 17—The various fisheries cases from down-river districts which were before Magistrate R. T. D. Aitken here for the last three weeks were disposed of today. The magistrate finding the defendants in seven cases not guilty, and in the case of Norman Mills he was found guilty and was fined \$5 and costs. W. H. Davidson appeared for the Crown and H. S. Murray represented the defendants.

All the old feminine fashions are made fun of except the huge skirts worn over hoopskirts. People still think they're pretty.

BERKLEY STUDENT SET A RECORD BY LIVING ON A SLIM RATION FROM SIX CENTS A DAY

(New York Sun)

From Berkeley comes the word that a University of California student has fattened and flourished on a carefully devised diet that cost him 6 cents a day. It consisted of boiled whole wheat with sugar and condensed milk for breakfast; the same stuff warmed up for lunch, and for dinner, carrots, an onion and a potato boiled into a stew.

A brisk inquiry indicates that this student probably holds the world's record for economical stoking of the inner man. True, a German scientist here in New York set the town by its ears a while back when he lived for thirty cents a day on crackers, fruit and a little milk, and then excited Denmark even more by getting by there on a practically all potato diet which set him back only 7 cents a day.

And up in Syracuse just two or three years ago the mayor there figured out a nine cents a day diet that he fed to the jobless and made them thrive on it whether they liked it or not.

And in Washington, not far from the Congressional restaurant where barrels of food were being wasted, four girls spent 7 cents a day and had near banquets that included eggs, peanuts and soy beans, cottage cheese, oranges and tomatoes.

And at the University of Nebraska a set of students worked out a 10 cents a day diet that included apples, cabbage, eggs when they were cheap, beef stew and whole wheat bread with raisins. All these, the students, the scientist, the needy and the stenographers manager to get along on little but they never worked their costs down to 6 cents a day.

The Right to Save

This is, probably, just as well. The wheat growers are all happier for it, and so are the meat raisers, and the fellows with thousand-acre fruit orchards and hundred-acre potato patches. These and a dozen other purveyors of food yell their heads off whenever some smart but poor man figures out a way to get along on less. And they may have all the right on their side, for after all a poor man unquestionably has the right to save

where he can. For there is no doubt about it that any sort of dieting, for the sake of your bank account figures or the figure you drape your clothes on hurts somebody.

The average man who would like to save and yet wouldn't like to see even big business go totally broke is a little perplexed. Letters to The Sun indicate, as a matter of fact, that he is very perplexed. Unbalanced dieting leads to crime, the news columns inform him, and yet if he tries for a balance some food seller is hit. Also if he tried for too much of a diet he may die, as an occasional reducing movie actor dies. And if he eats foods too soft his jaws will shrink, according to the dentists, or at least the jaws of his descendants seventeen times removed may shrink. And of course he would help only the tobacco growers if he tried the 99 per cent tobacco seed diet that recently kept a bunch of white rats alive and husky. And, still, he certainly must cut out some foods to avoid the sixty-five varieties of headaches that a congress of doctors agreed, just the other day, resulted from gastronomic fireworks due to stuffing.

Stiff Problem

For a common, ordinary, dull mortal it's all a mighty stiff problem. It's hard to figure out whether you look at it from the standpoint of your pocket-book, your figure such as it is or the other fellow's needs. And there's an even more difficult standpoint. That is the one from which, one season and another, you look and see irresistible platters and plates and bowls full of strawberry short cake, corn on the cob, new potatoes in cream, lemon pie, walnut ice cream, hot johnnycake, baking powder biscuits with white clover honey, roast chicken and mashed potatoes, apple dumplings, mushrooms broiled with hot butter, baked ham, waffles and syrup and a few other such articles. It's all hard enough to figure when you can't see such things as these. But when you see there's only one solution. That is to forget costs and weight and your fellow man, unbuckle your belt and let 'er go Gallagher.

P. E. I. OYSTER FARM HAS A YIELD OF 1,200 BBLs. TO ACRE

Here is a little story showing what efficient oyster "farming" can accomplish under proper conditions:

In 1929 in the course of experimental work conducted by the Dominion Department of Fisheries, one-third of an acre of suitable bottom in Maplegue Bay, P. E. I., was cleaned of mud and mussels and star fish and in September about 400 barrels of shells on which spat (or baby oysters) had been collected were planted on the bed. By the end of 1933 the bed had yielded 356 barrels of oysters and there were still left on it at least 50 barrels more, in addition to many small oysters out of the reckoning altogether, the production from the "farm" was at the rate of more than 1,200 barrels to the acre.

Of course, that's only bare outline of the story, and it deals with only one case among a number. A little more detail may be interesting, although the outline is sufficient in itself to indicate the possibilities of oyster farming, providing suitable bottom is farmed and right methods are followed, methods such as those developed by the Department of Fisheries in the investigations and experiments it has been conducting in certain parts of the coast in the past few years with a view of expanding the oyster industry.

Starfish Enemies

One of the essential things in oyster culture is to make sure that the oysters are protected against starfish, their natural enemies. Care was taken in this regard in handling the piece of ground referred to here. Before the spat were placed on it, the bed was and from time to time after that cleared of starfish by means of mops more mopping was done so that the oysters might have a fair chance. They did well and by September, 1931, two years after stocking an examination of the bed showed that there were about 187,000 oysters on it.

Of Good Size

In 1932 it was found that the oysters were growing in clusters and were not of the most satisfactory shape, but narrow and thin and it was therefore decided to remove some of them, separate the clusters and place them on another bed so that the effectiveness of cluster separation at this age, three years, could be ascertained. Only half of the bed was fished but it yielded about 140 barrels, and many of the oysters were already of marketable length and over.

Last year the second half of the bed was fished and 216 barrels were taken, making the total for the two years 356 barrels. After that an examination of the whole bed was made to see what quantity of oysters remained on it. The quantity was conservatively estimated at 50 barrels and as already noted, there were also many small oysters which will come of marketable size in due course.

The officer in charge of the work is of the opinion, moreover, that even a better record would probably have been made if separation of the clusters had been undertaken when the oysters were, say, two years old in-

PROVINCE OF NEW BRUNSWICK
Department of Public Works
Highway Division

Notice to Contractors

SEALED TENDERS for the following contracts will be received up to Twelve o'clock noon, Friday, JULY 20th, 1934, at the office of the Chief Highway Engineer, Fredericton, N. B., for

Asphaltic Concrete Pavement

Sheet Asphalt Wearing Surface

Contract No.	Highway No.	Miles
Contract No. 149	Highway No. 2—Woodstock (North Limit)—Hartland Bridge	11.0
Contract No. 150	Highway No. 2—Fredericton (West City Limit)—McKinley Ferry	7.5
Contract No. 151	Highway No. 2—Fairville (Manchester Corner)—Westfield Corner	12.3
Contract No. 152	Highway No. 2—Sussex (East Limit)—Penobscus Bridge	8.1
Contract No. 153	Highway No. 2—Moncton (West Limit)—West 5.0 (Moncton (South Limit)—South 5.0	10.0
Contract No. 154	Highway No. 1—St. Stephen (East Limit)—Gilman's Corner	8.3
Contract No. 155	Highway No. 11—Campbellton (East Limit)—C.N.E. Crossing, 1.4; Dalhousie (West Limit)—West, 7.0	8.4

Specifications, information to Bidders and Tender forms may be obtained on or after JULY 12th, 1934, at the office of the Chief Highway Engineer, Fredericton, N.B., or from the following District Highway Engineers: Moncton, N.B.; W. A. S. Melanson; Sussex, N.B.; J. T. Turnbull; Saint John, N.B.; F. W. C. Wetmore, Woodstock, N.B.

A Certified Cheque payable to the Honourable Provincial Secretary-Treasurer must accompany each tender. The amount of such cheque to be as follows:

Contract No. 149	\$28,000.00
Contract No. 150	19,000.00
Contract No. 151	30,000.00
Contract No. 152	20,000.00
Contract No. 153	28,000.00
Contract No. 154	22,000.00
Contract No. 155	18,000.00

Such Cheque will be forfeited in case Tenderer fails to complete his obligation. The Department does not bind tender.

HON. D. A. STEWART,
Minister of Public Works,
Department of Public Works,
Fredericton, N.B., July 7th, 1934.

NOTICE

NOTICE IS HEREBY GIVEN that the sale, under the powers of sale contained in two mortgages made between EDITH M. DUFFY, Mortgagor, and RACHEL E. HAWKINS, Mortgagee, of the lands and premises situate on the south westerly side of Needham Street in the City of Fredericton, occupied by the Mortgagor, advertised to be held in front of the Post Office in the said City of Fredericton on Wednesday, the Eleventh day of July instant, at the hour of 12 o'clock noon, was postponed by me to be held in front of the Post Office in the said City of Fredericton on Wednesday, the Eighth day of AUGUST next, at the hour of Twelve o'clock noon when the said lands and premises will be sold at Public Auction.

Dated this Eleventh day of July, A. D. 1934.

LEONAR C. BOX,
Auctioneer.

C. B. HAWKINS,
Solicitor for the Mortgagee.

THE PRINCESS IS ABLE TO HOLD HER VERDICT

London, England, July 17 — The Court of Appeals today dismissed the appeal of Metro-Goldwyn-Mayer, Limited, from the verdict of a lower court which awarded damages of \$125,000 to Princess Irena Yousouppoff who charged she had been libelled by the portrayal of a character in the motion picture "Rasputin and the Empress". Mr. Justice Scrutton dismissed the action after informing Sir Patrick Hastings, counsel for the princess, that it would be unnecessary for him to re-argue the contention that "Nataasha", a character in the film story is identified in the popular mind with Princess Yousouppoff.

"What we wish to have dealt with by you is the question of damages", the Justice said to Sir Patrick.

stead of waiting until they had reached three and four years. As it was, he points out, more than half of them could have been marketed at a fair price.

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