New York's Greatest Project in Bridges



New Jersey together by a great bridge cies, a sort of emergency fund, \$1,900,000. stretching from Manhattan Island to the All the traffic is to be carried on one Pallaades, and having the largest single level, provision being made for sight years from time work is actually begun. span and the greatest capacity of any lines of rapid transit. These are to conbridge in the world, is taking tangible sist of two tracks for subway trains, shape. from New Jersey to investigate and re- New York surface cars using a slot troiport on the project have recommended ley and two for New Jersey surface cars to their state that the bridge be built. It is expected that the New York commissloners appoined for the same purpose will make a like recommendation. It will then be up to the legislature of this state, as it is already up to the lawmak- feet wide, on either side of the bridge. ers across the river, to authorize the construction of the bridge and make the necessary appropriations.

The site chosen by the commissioners is the block between Fifty-seventh and Fifty-sighth streets on the Manhattan side, where the elevation of the land obviates the necessity of a long approach, from which point it will stretch to the Palisados at Weehawken. Here the bridge will pass high over the West Shore railroad freight tracks at the base of the eller.

The plan to build a bridge from Manhattan island to New Jersey has been, heard of before, but only in its prelimihary form. Agitation was begun six years ago with the appointment of a determine the feasibility of the project. Work was delayed somewhat because, for two years, there was no New Jersey commission. But last winter a new commission was appointed for that state, and each shore. its deliberations have borne early fruit. The Fifty-seventh street site having been from various considerations, borings were made on both sides of the river in Janunry of this year, which demonstrated the practicability of constructing a bridge at that point. This has enabled the engiseers retained by the commission, Boller. Hodge & Baird, to make preliminary trawings of the structure and estimates Its cost.

What Plans Call For. These plans call for a suspension bridge

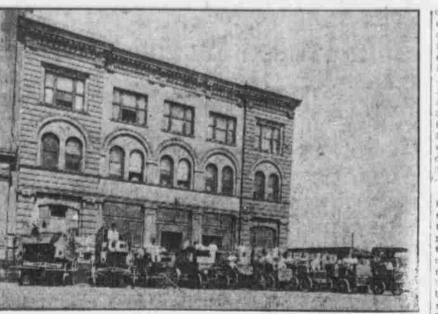
The daring plan to link New York and \$5,300,000, and for engineering contingen-The commissioners appointed two for elevated rallway trains, two for using an overhead trolley. In addition to this there are to be two driveways each thirty-six feet wee, or with capacity for four vehicles abreast. There are also to be two sidewalks, each eight It may be that the entire police force of New York and all the militla of northern New Jersey would be able to keep this space clear during a naval parade

or a river pageant, but if they did they would have to miss seeing the parade themselves. As an observation gallery at such an event it would be unsurpassed. The location of all the traffic lines on a common level would be of much advantage, it is pointed out, in case of a block, The total width of the floor bearing these various tracks and roadways will be 204 fout. It will give the structure a greater capacity than any other bridge yet built. Surpassing in Size.

The towers will be of steel framework, above the water. The main cables will be stiffened with secondary cables and web members, and the anchorages will mar the beauty of that parkway. Howbe carried into the natural ledge rock on ever, at Fort Washington park, opposite

179th street, the New York shore runs out As well as being the longest in the into a point, making a very satisfactory The Fifty-seventh street site having been world, the center span is also thirty-five site for a bridge. fixed upon as the one most desirable feet higher above the surface of the The engineers were thus afforded r water than any of the four huge bridges that span the East river. The engineers equal desirability. It was first determined classified into those which are harmful arated in any centrifugal separator. That have assumed that the clear height over by borings that at no one of the three and must be got rid of, and those which process insures a smooth, rich, even and the river will be 170 feet. This will re-could piers be built in midstream. The are harmless and even helpful. It has thoroughly homogeneous cream that quire a grade of only 2 48-1000 per cent necessity, therefore, of building a bridge been found that ice cream can be frozen whips into soft, smooth ice cream with from Ninth avenue, the eastern end of having a single span between plerhead the Manhattan approach, to the New lines showed that the location of the York pier, and thence a straighaway bridge would not greatly affect its cost.

level street to the western extremity of The Fifty-ninth street site was accordthe New Jersey approach, which will be at the Hudson county boulevard loop in the most desirable from a traffic stand-



THE DELIVERY FORCE

One of the striking phases of modern product-is made in Nebraska. This is business is the way in which certain in- because there is the greatest percentage dustries, largely founded upon pleasure or or butter fat in the cream used here, amusement, scarcely regarded seriously and the "goodness" of ice cream deat first, have grown almost over night, pends directly and almost wholly on the like Jack and his beanstalk, to enormous richness of the cream which is its prinproportions, involving millions of capital, thousands upon thousands of employes,

One of the oldest manufacturing and incidentally filling the pockets of plants, and whose product has been harmless, quiet way the automobile cuit, maintained continuously and uniformly which has run into fabulous figures; the at the very highest point, is the Harding development of the player-plano is an- Ice Cream company in Omaha. This other example, not so well known, but company keeps up with every improvevery remarkable if all the facts were set ment in machinery or scientific disforth; and probably the most extraor- covery or improved method; and a trip dinary of the mushroom growths which through its plant is a revelation to the illustrate this tendency are the moving man or woman accustomed to thinking pictures, which need no comment to call of ice cream as an unimportant byattention to their sensational career in product of a great dairy.

the commercial world. It may well have escaped observation One of the first things one learns is that the homely and familiar dish of joe that all the cream that is used for this cream ranks high among these wizards purpose is brought in sweet from nearby of the world of trade, and that its growth points. At a station a little distance from has been scarcely less meteoric than any. the city it is assembled and pasteurized, A few facts and figures may prove in- a process consisting of heating the sweet structive and entertaining, especially to cream to a temperature of 170 to 190 dethose of us who take our ice cream as a grees Fahrenheit, at which point all matter of course, and do not stop to think germs are killed. It is then cooled down what a necessity it has become until we to two or three degrees above freezing, find ourselves in some foreign country and in that condition brought to the fac tory. Here it is kept for a day or two. where there is none to be had. Ten years ago, as a separate industry, "aged." as the expression is, so that it

the manufacture of ice cream amounted may be in a proper condition to whip to practically nothing at all. Last year, up, for very fresh cream is difficult to to practically nothing at all. Last year, 154,000.000 gallons were made and sold in the finished product smooth and light. the United States, of course without regard to the many other million gallons which should be of special interest to made at home for home consumption. every housewife. Everyone knows that Translated into dollars and cents these in whipping cream there is always the figures run into hundreds of million danger that it will "butter," and, of mmision by each of the two states to reaching to a height of about 600 feel satisfactory by the engineers, except that dollars. In Omaha alone the increase in course, the dasher in an ice cream freezer the retail trade has been over 1.000 per actually whips the cream while it is cent. The manner of its production and freezing. There has recently been inits ingredients are regulated by state vented a machine which "grinds up" the and national laws. Several universities, cream; in other words, the cream is compressed and squeezed through an inamong them Nebraska and Iowa, include a course of the manufacture of finitesimal opening under tremendous

pressure, the fat globules being broken ice cream in their agriculture courses. up so that they never reunite. Such cream choice among three sites of apparent Its bacteria have been counted, and can never "butter," nor can it be sep-



to the floor below and directly into the parts of Nebraska and lowa. freezers, brine-jacketed horizontal cans The Harding company supplies some or containers, with a dasher in the mid- large retail customers in Omaha, such dle and a scruper on the sides to prevent as hotels and hospitals; but strictly

Ice Cream Industry Makes Great Strides

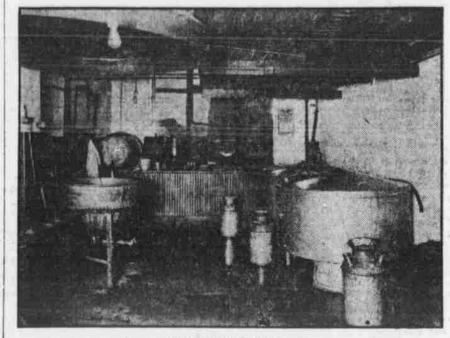
This is the critical and really vital point that the retail customer is reached the ice cream tastes to many palates the not yet frozen solid.

slating of sugar, flavoring extract and seconomy in machinery and labor, and little gelatine, are mixed in the great to the fact that they buy everything in ontainers, holding each 150 gallons, and very large quantities, the Harding comhis mixing is the most thorough and pany can sell a better cream for a lower exhaustive affair one over saw. The price in towns all over the state than echnical name for the revolving paddies can be made on the spot by local a "agitators," which seems to indicate factories. This forms the great prosubject. From these containers the mixture is let down through sanitary piping a radius of 300 miles, extending into all

its adhering, kept continually and rapidly speaking it has no retail trade. It will perhaps be a matter of surprise to learn

In the process, for at just the right mo- almost entirely through the medium of ment the mixture in the freezer must be the drug stores and confectionery stores tested, and if it has reached exactly the which have soda fountains. The ice proper state it must be poured off into the cans or moulds in which it will be- cream also is frequently handled in come marketable. A man stands at the grocery stores and even in pool halls. mouth of these freezers watching every Not only is the dealer himself a very instant, that the mixture is not taken out large customer of loe cream for by any chance too soon or that it does use in connection with the Innumernot stay in one fatal instant too long, able forms of ice cream' soda and This man is an expert, a university- "sundaes" which he himself dispenses, trained man, who stands guard there day but he carries also a supply of ice after day, all day, and all the year round, cream in the form of pint or quart who never misses the precise instant bricks which he sells over the counter or to empty those ceaselessly revolving delivers to his customers at their resifreezers. It is just at this point, too, that dences. This method is employed not very best, while it is perfectly cold, but in Omaha alone, but in citles all over the United States. It has the great The cans of semi-hard cream, as they merit of simplicity. A customer can call

are filled from the revolving freezers, are or telephone to the nearest ice cream then set into the cold room and allowed dealer, leave an order for a standard to harden. This room is perfectly dry brick or for some special kind or form



THE MIXING ROOM

and is maintained at zero all the year of cream and the matter is attended around; it has a capacity of \$,000 gallons. to for him without further care. It is The capacity of the factory is 3,500 gal- quick, convenient and enables the cuslons a day, which can be stretched to tomer to deal with some one he knows. 5,000 if necessary. When the cream has On the part of the manufacturer it inbecome perfectly solid and hard, it is ready for packing and shipping from the shipping room, whence it is sent all over the state, as well as to points in the city. Ice cream has had its evolution, like establishes in many drug stores and verything else, and the "New Ice Cream" other places which handle its ice cream is distinguished first of all by its abso- on a large scale an ice oream cabinet, lute, perfect, scientific cleanliness. In the which it keeps in order, supplies with first place, the thirty or forty attendants freezing mixture and fills with the are dressed in spotless white. Second, no necessary kinds of cream. Here repose numan hand ever comes in contact with the family Sunday dessert, the means the mixture. The 150-gallon containers to provide for an unexpected emergency are thoroughly sterilized. The carrying of company, the refreshing entertainpipes are so constructed that they can be ment for a hot summer evening; and unscrewed and cleaned every day. Pipes, ment for a hot summer evening; and freezers, containers, cans and all other

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with a length, including approaches, of Weehawken,

with a length, including approaches, of 5,300 feet. The center span of this struc-ture is to be 2,380 feet from the center to center of the two towers. This will to center of the two towers. This will engineers declare, as on the row towers, the bridge is the erection of the part make it the largest single span in the world. The towers are built flush with the pierhead lines of 1897, which at this have to be secured an easement to stretch the pierhead lines of 1897, which at this the top prove the pierhead lines of the provention of the pierhead lines of the top prove the pierhead lines of the p point are 2,730 feet spart. The estimated the lofty approach high in the air over tost of the brisge is \$12,000,000, divided as the West Shore freight storage tracks preumatic caisson construction. They will tollows: Cost of arructure, 129,000,000; from the brow of the Pallsades to the which, it is planned, will be sunk by real estate to be condemned, \$4,500,000; Interest charges during construction, In New York it is proposed to buy the

rock .- New York Tribune.

the entire structure can be completed and

Selection of Site.

The selection of the Fifty-seventh street

site was the result of much study, and is

regarded as final. It is assumed, in the

first place, by the investigating engineers,

that to be of the greatest service an inter-

state bridge must cross the Hudson river

At the very start it is seen that the

bridge must be placed north of Fiftieth

street, because below that point the land

on both sides of the river is low, necessi-

tating long approaches, which add greatly

As far as the shore conditions go, the

engineers say, a bridge can be satisfac-

torily constructed at any point between

Fiftieth and Fifty-ninth streets. From

Fifty-ninth street to li6th street it would

be undesirable to build a bridge, because

Central park would interfere with cross-

town connections. One Hundred and

Tenth street offers a good crosstown out-

let, but from there to 135th street all

crosstown vehicular traffic would be cut

off by Morningside Heights and the Man-

Shore conditions for a bridge at any

point north of 135th street are regarded as

Riverside drive runs along this section,

and a bridge at almost any point would

to the cost of a bridge.

hattan valley.

m some point on Manhattan Island.

ready for use within the space of six

New Laws Passed by Nebraska Legislature

submit a petition three must estab-opening of term, authorities must estab-lish a course in any European modern ianguage designated by the parents for pupils above the fourth grade; not more than one period each day to be devoted to such study; this set applicable to every high school, the state. State Officers. H. R. 350, by Scott of Hamilton-Trans-ters collection and publication of agri-ters collection of bougas. H. R. 360, by Second of agriculture; no appropriation. (Emergency.) H. R. 360, by Jackson or Nuckolls-Re-H. R. 360, by Jackson or Nuckolls-Re-S. F. 391, by Taicott of Knox-Estab-lishes a state board of distribution lishes a state board of the distribution composed of

equivalent to saying in the world-for lice cream. this is as yet almost purely an American Then the cream and other ingredients,

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All accidents received by workenen in the optimes of the intervolution of the fourts of the intervolution of the fourts intervolution of all telephone that one all telephone that one and the balance dia of the intervolution of all telephone that long setter of the significant to encounting the and the balance dia of the favore for the intervolution of all telephone that long setter is the terminating time, and the balance dia of the memory and the terminating time and the balance dia of the favore for the intervolution of all telephone that long setter that the employer is will be transformed to the significant counts of the transformed termination of all telephone that one and the balance dia of the terminating time and the balance din the terminating time and the bala

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very midst.

Just at this point something takes place

a majority of the votors favor it, the sys- all accidents received by workmen in the 50 per cent of wages (maximum \$10 and ination from \$5 to \$10.

utensils are cleaned with live steam, most complicated order can be delivered which is on tap every moment and which to the factory with certainty of its scours, scrapes, dissolves and purifies as prompt and faithful execution. Surely no ordinary soap and water can ever do. convenience cannot go further.

All the walls are whitewashed and every rear of the room can be flushed. The dish: it is an ail-the-year-around neces-cream itself is pasteurized, as we have sity in these days. It is wholesome and seen, which is only another word for nourishing, and one of the first things purifying it. All the other ingredients are which a fever patient is allowed to eat those which have been subjected to the upon convalescence. And this is a great national pure food law inspection and ice cream country. We eat more ice bear its label. The state law indicates cream per capita in Nebraska than is a minimum of butter fat contents, but consumed in the southern states with that has never been a matter of interest their long hot summers. This is princito the Harding company. pally because ice cream manufacturers

If time and space permitted, one would in this part of the world have more like to linger on some of the side issues energy and enterprise in diffusing their and refinements of the art; on the great wares, and perhaps, partly, too, because machine, for example, which non-machine, for example, which non-enoyments. The Harding company keeps chalantly seizes a huge block of ice and a corps of nine auto trucks and three dereduces it almost instantaneously to livery wagons on the go all the time. It splinters small enough for cooling a has \$100,000 capital tied up in its ice cream glass of cordial; or on the clever equipment. But it is never satisfied. It devices by which ice cream is produced keeps studying the subject all the time. in layers of different colors, or in the learning of new methods, new types of machinery, the latest bacteriological disforms of fruit or flowers, or in blocks coveries-anything and everything that with a figure of contrasting line in the can shed light on the matter of making

a better product, reducing cost or simpli-But one of the most important features fying labor. It means to maintain its is still to be described, namely, the distribution of the cream to the whole-but also the best factory in the state, reputation for being not only the oldest. more nutritious wholesome and appe- saler, the retailer, and the ultimate con- and it is justly proud of the reputation It has been said that the very best tizing product without the "buttery" or sumer. The wholesale trade is easily of is founder, Mr. Harding, the oldest fee cream in the United States and that is crystalline tasts sometimes noticeable in disposed of. The standard five-gallon cream man in Nebraska, whose names cans, securely packed in tubs, are sent carries a guarantee of experience, honest to all points by express. Owing to great | dealing and high excellence of output.

