# BROOKLYN THE HOME CITY.

## REMARKABLE REAL ESTATE DEVELOPMENT NOW IN PROGRESS.

**The Trolley System Has Brought All Parts of the Borough Within Thirty-five Minutes of the City Hall in Manhattan and Brooklyn Is Drawing People from Every Town in the Metropolitan District—4,000 New Houses Under Construction and Hundreds of Acres of Farm Lands Are Being Cut Up Into City Building Lots—New "Towns" Springing Up Like Mushrooms.**

New York is growing Brooklynward at a marvellous pace. Brooklyn borough is already the borough of homes. If its present progress continues it soon will be the borough of homes of the country, if it has not already attained that position. It is safe to say that Philadelphia, the city of homes, is already outstripped, and that Brooklyn contains more individual homes than that city famed for its homes; and it is growing so fast that even the confirmed Brooklynites accustomed to exaggerate the beauty and the size of the borough do not make their stories big enough, and are guilty of belittling things. At the present moment there are more than four thousand residences in course of construction in the new part of the city. This does not include the ordinary buildings of a big city. It does not include flat houses or stores, and it does not include hundreds of private residences that are going up in the old city. These four thousand dwellings will each, when completed, be an individual home, the home of one family. They are being built on the edge of the old city.

The borough of Brooklyn is drawing new people from every borough and every town in the metropolitan district; she is drawing from the boroughs of Manhattan and the Bronx. The districts north of the city, Yonkers, New Rochelle and a score of towns like them, are feeling her growth. She is drawing from Jersey City and Newark and Hoboken, from Paterson and Passaic and the multitude of towns in New Jersey near the city. It is predicted that the census, which will soon be taken, will show that the growth of Brooklyn as a home city in the last two or three years is phenomenal. This story is in nowise a boom for Brooklyn. It's a plain statement of fact which an investment of five cents on a trolley car will abundantly prove is not overdrawn, and if things go on as they are going now it will not be many years before the visitor to New York will be told when he remarks of the wonders of the city, "Here's where they work and there," pointing across the big bridge, "is where they live."

In general outline Brooklyn is a great fan. The big bridge is the handle, and starting at the other side she spreads out in every direction. If she were built long and narrow, like Manhattan, already she would reach out half the length of Long Island; but rounded as she is, all parts of the borough are in easy reach. That probably, more than anything else, is the explanation of her present popularity and her present growth. Every part of the borough is within an hour's ride of the Manhattan end of the bridge, and it costs only five cents to get there. Nearly all of her territory is within thirty minutes' ride of the Manhattan end of the bridge. The outskirts of the old city, where the thousands of new houses are building, are all of them within thirty-five minutes of the Manhattan end of the bridge, and between these outskirts and the limits of the borough there are hundreds of acres of land now practically vacant which are fast going into the hands of the real estate syndicates that are taking a large part in the development of the new city.

It is within the memory of boys and girls now in school when miles of the present city, in any direction you care to point, were devoted exclusively to truck farming, as is the great territory between the city's outskirts and the city's limits now. The region was one of the great trucking districts of the country. A large part of the fresh vegetables that came to New York's big markets came from what is now a thickly populated part of the borough of Brooklyn. Truck farming paid handsomely. These farms had been handed down from generation to generation for 100 to 200 years. In many instances the title had never passed out of a single family, and ten years ago the generation in possession probably thought it never would, if it thought about it at all, for the growth of the city at that time was in one or two directions only.

The present development of Brooklyn might be said to be the history of the trolley system that provides the means of transit for the people to and from their homes. The trolley roads, the Brooklyn City, the Brooklyn Heights, the Nassau Company, the Brooklyn, Queens and Suburban, now all the Brooklyn Rapid Transit, and the De Kalb avenue and the Smith street lines, the only independent company in the city, have made the city of Brooklyn what it is. They are to-day making it the city of homes of the nation. They alone are responsible for the present development, and to them the people who are finding comfortable homes there for little money, no less than the original owner of the land, are indebted. The business of the trolley companies has been to enrich the city by making available for homes districts that were inaccessible and that promised to remain so.

Don't let anybody run away with the idea that the trolley roads were run by philanthropists. Probably there was nothing further from the thoughts of the wise men who built the roads and managed them than philanthropy. They were shrewd, hard-headed business men with money to invest, idle money on which they wanted interest. They were after cash for cash. Roswell P. Flower, whose death the other day was considered the hardest blow that Brooklyn Rapid Transit had ever received; Anthony N. Brady, the Standard Oil Company and men of that stamp saw in the development of the trolley roads the development of the city and with the development of the city the return of the money they invested with heavy interest. It was no speculation with them. It was the history of railroads that any road along the line of which there was an average increase of population of ten per cent. in a year was bound to pay. There had been the necessary increase along the lines of the old roads in Brooklyn. They had not paid. These men saw that it was because of the unnecessarily expensive management. They also saw that in the development of the metropolis of the nation homes for the people convenient to the business centre were absolutely necessary. On the west side the river was a stumbling block. Jersey could take care of some, but was not convenient enough for even a large proportion. Uptown was already crowded. The country beyond was inaccessible because of the long and narrow formation of Manhattan Island, which placed the district too far off in miles to be travelled. The bridge and the propositions for future bridges made Brooklyn the place of places. That is the cold-blooded reason, with a cash basis, why the financiers took to the development of Brooklyn. Brooklyn had miles of farmlands all around her that could be cut up and built up, and that would provide room for 100 per cent. increase in population, to say nothing of 10 per cent.

While these men had money to invest in railroads there were plenty of others who had money to invest in lands that were on the line of railroads, and real estate speculators who studied the plans of trolley railroad development went out to the farmers with their cash and bought options on the farms. In a good many cases the farmers grinned at them for so foolishly offering so good a bargain. When the time came to take up the options the railroad developers had indicated positively what was coming and the real estate speculators closed with the farmers and took the farms. Many of the farmers who had been shrewd enough not to sell turned real estate speculators. Farms were abandoned as farms. They were cut up into city lots 20 feet wide by 100 deep. The farms that had blossomed with cabbages and turnips and onions now blossomed with little white sticks with numbers on them. The cowpaths became avenues, with high-sounding names or roads with names suggestive of wealth and prosperity. A house was built here and there by the speculator just as a sample to show what a fine house a man of moderate means could own if he wanted to, and then the papers teemed with advertisements. The old farms became villages. Van Pelt Manor, Bensonhurst-by-the-Sea, Vanderveer Park, Bergen Beach, Home Crest, Brooklyn Manor, Brooklyn Hills, Slocum Park and a hundred others, the names of which can be learned in a five-cent trolley ride. There is a brief history of the beginning of the present growth Brooklynward of the Greater New York. It is all within the memory of the High School pupils, and most of it within the memory of the children in the grammar schools. The filling up of the great districts that are still farmlands will be in their time, and at the present rate it may be in the time of the middle aged and the old folks of to-day.

The boom was on long before the trolley roads and the elevated roads crossed the bridge. It was on to an extent that made the Brooklynites open their eyes. When finally the trolleys crossed the bridge and it was possible to go anywhere in Brooklyn from New York for five cents, even so far away as Coney Island and Bergen Beach and Carnarsie, then began the jump in population that has made and is making the other suburbs of New York surprised. It needed one fare and no change of cars to convince New York people that the borough of Brooklyn was a part of the city of New York. With the one fare was a transfer system, so that for five cents one could go anywhere. It needed one fare and no change of cars to convince the average man who has determined since to live in Brooklyn that an individual house, quiet, a yard and a few similar accessories were better than a flat in a crowded street where the wagons rattled and which the elevated trains filled with smoke and noise. The great increase that is coming now is of the class of people who rent flats in New York at from $300 to $1,000 a year.

THE SUN reporter spent two or three days last week on Brooklyn trolley cars, riding to the end of each of the twenty or thirty lines. As was stated, Brooklyn, beginning at the bridge, opens out like a huge fan. These trolley lines radiate from the bridge like the ribs of the fan or like the spokes of a half wheel, the bridge being the hub. The ride on the trolleys was to the end of each line, with intermediate stops at the more prosperous-looking of the building districts. The stops cost nothing. At every "new" place there was a huge sign inviting passers to get off and look around and telling them that if they did their fare would be returned to them, so that they could resume their journey without cost. That is a little way the real estate agents have of inducing people to look at their land. These journeys of the reporter brought out one thing with emphasis. That was that land is cheap provided a man wants to build a house. It is dear if he does not, and the real estate agents are not anxious to sell unless the man who wants to buy wants to build. The reason for that, of course, is plain. The more houses that go up and the more people who come to live in a district, the more valuable is the land that is not quickly sold.

If a man wants to build he can buy land cheaper in the borough of Brooklyn than he can in any other one of the suburbs of New York. He can buy a lot for $125. From that sum to $350 he can buy as fine a lot as the most fastidious could ask, and he can pay for it with $5 cash or $10 cash and the same amount a month until the total has been paid. For $500 cash he can buy a $4,000 house and can pay the balance in the form of rent. If he can convince the real estate man that he is in earnest in wanting to buy and will fulfill his promises, he may be able to get along without the $500 in cash and get his house with practically no cash payment. How long that sort of business is going to last it is of course not possible to say, but it is going on now, and it is that, next to the trolley railroads, which is responsible for the great building operations now in progress and the development of the outlying districts of the borough.

Everywhere on these trolley rides were seen buildings in course of construction. Towns seemed to be springing up in a night, as they say of the mining-camp towns in the West. There were pretentious houses and unpretentious houses, the very expensive and the moderately cheap. There were no very cheap ones, for in these districts the real estate men had seen the advantage of restricting the purchasers of the land to houses of a certain cost. As several of them said, "A single cheap house makes the character of the neighborhood around it. People will not build a good house beside a poor one, and all the surrounding property is cheapened so that we would lose money even if we were able to dispose of the adjoining lots at all, which is doubtful. People won't build a good house if there is any danger of somebody else building a poor one in the neighborhood, so that in both instances restrictions as to cost, and in a measure as to style, are absolutely necessary." But in spite of restrictions, there were localities where the noise of the trolley cars was drowned by the noise of the hammers, and that fact may give to the reader an adequate idea of just how much building there is going on.

There is not space in this article to tell of all the places that were visited, nor is it necessary to tell of all to show the wonderful growth that is going on. It may be said that what is said of those that are mentioned so far as the building operations are concerned is true of all. No part of the immense suburbs has a monopoly of growth. It is general. It spreads in all directions. The big face of population is growing bigger, the circle of its outer edge being retained. It was not so very long ago that Flatbush seemed a long way from New York. The man who went to Flatbush to live went out into the country. To-day Flatbush is in the centre of the city of New York. It takes exactly 20 minutes to reach Flatbush from the Manhattan end of the bridge. That is about as long as it takes to go from the City Hall to Fifty-ninth street on the elevated railroads or from the City Hall to the Fifth Avenue Hotel by the Broadway cable. That fact alone explains the building operations in Flatbush. Flatbush was surrounded by farms only a short time ago. These farms have all been bought up and cut up into building lots of the size of a city lot. The property of just one family over there, that of the John Lefferts estate, has already been changed from farmland into a populous city in itself. It has been built up with fine residences such as line the Hudson River above New York city, and fifty more houses are in course of construction there. In the suburb of Flatbush alone there were 500 new buildings put up in 1898. Nearly all of them were residences. In the first four months of the present year 120 new residences were completed, and in the same time there were building permits issued for 366 new buildings, the character of which may be judged when it is known that the estimated cost filed when the applications for permits were made aggregated nearly $1,500,000, an average of about $4,000 each.

Flatbush is on the direct line to Bergen Beach, and between Bergen Beach and the town there are hundreds of acres of land that are in process of development. A place called Vanderveer Park has become a little city. In 1892 it was made up of farms. To-day it contains 800 acres of improved property. The farms have been cut up into about 7,500 building lots. There are 750 houses already built, and a hundred more are in course of building. And in sight of this place there are a half dozen other districts that are being built up as rapidly. There are Martense and Kensington Heights and Parkville, Prospect Park South and others. In Flatlands, but a few years ago seemingly hopelessly inaccessible, houses are being built like mushrooms. A development company with a big capital has bought up great tracts of farm land and money is being lent to New York city people who want to build their own homes. The farm lands right down to Bergen Beach and Canarsie are being cut up into 20x100 foot patches as fast as the real estate men can cut them, and the people are buying and building as fast as the architects can plan the buildings and the mechanics can build them. In this ward alone there are more than a hundred buildings in course of construction. Practically all of them are homes.

Start in the trolley car from the bridge and go out toward Fort Hamilton and New Utrecht, and the story is the same. The farms are transformed into town sites with fancy names, and millions are being invested in land and new buildings, while the population is increasing as fast as the houses can be built to accommodate the people. Dyker Meadow Park is out there, and with it as a centre the country around has blossomed with homes. In 1898 in this section there were 455 new buildings, nearly all of them residences completed. In the first four months of the present year 116 new buildings were completed, and promits were issued for 157 more. Give those figures time to digest and you will realize what they mean. It might almost be said that all these buildings are going up in sight of one another, and you can see how true is the statement that the noise of the street traffic is drowned by the clacking of the hammers in the hands of mechanics. Borough Park is another spot out there that is in process of development. The farms that it was have been cut up into 4,000 city lots, and in a year's time 400 houses have been planned and built. Dyker Heights is another, and it is being built up as fast as money can do it. Homewood is another, and Mapleton and Bath Beach. The last is changing from the summer resort that it was and had been for a hundred years to a populous town of all-the-year-round homes. Homewood is being built up by prosperous mechanics, who are building on the rent-paying plan, and are moving their furniture from the crowded tenements of New York to the comforts of an individual house with a yard for the children and with fresh air for everybody. Homewood is another spot where the noise of the hammers drowns the noise of the street traffic.

The same story of growth and building can be told of Van Pelt Manor and Bensonhurst-by-the-Sea. It's build, build, everywhere, and not speculative building either. Down Coney Island way the story is the same. The acres through which the half dozen steam railroads carried the thousands of visitors to Coney Island a few years ago and which were then farms are now feeling the effect of the trolley development. At Coney Island itself a new place of all-the-year-round homes is being built. It is called Sea Gate and restrictions shut out the undesirable crowd. There is another town near Sheepshead Bay called Home Crest and it has been laid out only a few months; yet at the present time there are fifty houses in course of construction. The Lindens and Oak Crest are others.

These places that are told about are within thirty-five minutes' journey by trolley car from the New York City Hall, and it costs 5 cents to get to any of them. There's the explanation of the development that they are undergoing. They are all of them within ten miles of the New York City Hall. That is to say, the ones furthest away are as near to the City Hall as 155th street on Manhattan Island. There are others in as easy reach, such as Midwood, Windsor Terrace, Fiske Terrace, Bay Ridge Park, New Utrecht Park, Fort Hamilton, Richmond Hill, Woodside, Elmhurst, for instance, and over in Queens county, where the development is spreading, there are about as many.

All this development is going on with only one bridge over the East River. What will it be when the two new bridges that Mayor Van Wyck wants during his administration are completed? New bridges will bring some of these places within fifteen minutes of the Manhattan side of the river. They will permit of the further development of the trolley system. They will lessen the crush on the present bridge. They will relieve the crush of travel through the streets that now have to accommodate it all and thus quicker time will be possible by old routes as well as by new. They will open new districts in Queens county, and the fan will continue to spread in every direction and it will all be one continuous city—a city of homes.

Any one who has any doubt about the character of the development that is going on need only go to any of the business streets in the Borough of Brooklyn. He will see there the streets and the stores thronged with women. If he counts he will probably find fifty women to one man. Brooklyn is the Borough of homes and the women own it.

## THE CIGARETTE ISSUE.

**A Review of Arguments For and Against Favors the Cigarette's Enemies.**

Last week the Maryland Public Health Association devoted itself to the consideration of an essay which severely attacked the cigarette and implored the assistance of physicians in behalf of an effort to discourage its use, particularly among young men and boys. In the attack it was set forth that the constant use of cigarettes by youths dulls the eyes and makes the person lazy, irritable and unambitious; that it retards physical growth, dwarfs the mind and deforms the body; that it injures the heart, causes throat troubles, and is frequently a stepping-stone to the habitual use of alcoholic drinks. The cigarette, it was charged, antagonizes the best efforts of the mother for the welfare of her boy.

In expressing their views upon the subject the physicians present failed to agree with the conclusions of Mrs. E. A. Robinson, author of the paper. Dr. John S. Fulton, Secretary of the State Board of Health, said that, in his opinion, the smoking of cigarettes is "the least injurious of any form of tobacco using." Experience and investigation prove, he declared, that the complaints usually made against it are absurd. He regretted the use of cigarettes by boys, but believed that the latter might smoke them in moderation and suffer none of the frightful effects commonly described. He did not believe that cigarette smoking dwarfed the growth.

In respect of the last statement, Dr. Fulton's view was not supported by Dr. Edward M. Schaeffer. Dr. Schaeffer held that tobacco does interfere with the proper growth and development of the body, and he recommended that particular emphasis be given to that fact when attempting to dissuade boys from smoking. He averred that when tobacco furnishes solace and comfort, as it often does in the case of persons overworked or fretful, its use is beneficial. He did not believe that cigarette smoking solely was ever responsible for insanity.

Dr. Samuel J. Fort reported that in every case of serious illness among boy smokers that had come to his notice, and which was thought to be caused by cigarettes, some mental or physical unsoundness produced by other causes was at the bottom of the trouble. He thought that if young men were taught moderation in the use of tobacco much more satisfactory results would follow than could be obtained by seeking to horrify smokers with gross misrepresentations of the real effect of their habit.

About a year and a half ago the "coffin nail," as it is termed by some, was earnestly discussed by the Medico-Legal Society of New York. At that time Dr. Robert Gunn, speaking in condemnation of the cigarette, said that in children it paved the way to all sorts of nervous diseases, led to the use of cigars and strong drinks, and often wrought bodily destruction. As regards insanity as a result of cigarette smoking, a prominent doctor from Bellevue Hospital was quoted to the effect that he had never seen such a case, and did not believe that the cigarette habit alone ever made any one insane.

In the fall of 1897 a spirited agitation against the cigarette in Chicago was succeeded by a careful analysis by that city's Health Department of the brands of the article sold there. Fourteen different makes were examined by the department's experts, and it was reported that the cigarettes were found to be "entirely free from opium, morphine, jimson weed, belladonna, atropine, hyoscyamus, or other substances foreign to pure tobacco, and there was no lead or arsenic in the paper wrappers." It was said that the tobacco in the specimens examined contained not more than one-quarter as much nicotine—the poison generally complained of—as the average cigars, and less than most of the smoking tobacco sold in the city. In short, it was declared that there was nothing in any of the cigarettes analyzed for any smoker to be afraid of.

The doctors have had their say and the cigarette's enemies have had theirs, and, considering the evidence, the burden of proof seems to lie with the latter. Nobody denies that many persons who smoke the paper-wrapped weed suffer from ailments of which they were not cognizant before they commenced to do so. But can cigarette smoking rightly be held accountable for their changed condition? That's the question which confronted the doctors, and they reply, no.

# BRITISH PACIFIC CABLE.

## ENGLAND PRACTICALLY DECLINES TO HELP THE COLONIES.

**Australia and Canada Must Build the Line and the Mother Country Will Give a Subsidy of $100,000 a Year if Necessary —New Kind of Color Photography.**

LONDON, May 13.—The definite refusal of the British Government to share with the colonies the cost of the construction of an all-British Pacific cable is an intimation from so enthusiastic an imperialist as Mr. Chamberlain that there is a point where sentiment must be set aside and business looked to. The offer of an annual subsidy of $100,000 for a period not exceeding twenty years is the furthest the London Government will go. The official correspondence issued this week dates from August, 1898, after the conference of Australian Premiers, when it was agreed that if Great Britain and Canada would together agree to pay five-ninths of the cost and New Zealand one-ninth, then New South Wales, Queensland and Victoria would each contribute one-ninth. The New Zealand Government agreed in November to pay one-ninth, and added a remarkable proposal, that the maximum rates for ordinary messages should be three shillings a word from Great Britain to New Zealand; for Government messages, two shillings a word, and for press messages one shilling a word and six shillings a hundred words. The last figure seems incredible, but it stands so in the official correspondence. Late in December the Canadian Government agreed to pay its half of the five-ninths, and it only remained for the British Colonial Office and the Treasury to take up their share here for the construction of the cable to be assured. But this they have refused to do and their decision which is dated April 28, 1899, is interesting and important enough to give in full. It is a circular letter, addressed to the Agents-General in London of all the colonies concerned in the cable and reads:

"I am directed by Mr. Secretary Chamberlain to convey to you the decision at which her Majesty's Government have arrived as to the form and extent of the assistance which they are prepared to give to the scheme for connecting Canada with Australia by a direct submarine cable across the Pacific. I am to remind you that in the various communications which have been from time to time addressed to the Colonial Governments on this subject her Majesty's Government have never concealed their opinion that the construction of a Pacific cable is a matter of much greater importance to Australasia and Canada than to the United Kingdom, and they would not have themselves been disposed to recommend Parliament to aid it but for their desire to afford the support and assistance of the mother country to her great self-governing colonies in a project the success of which cannot fail to promote imperial unity.

"For this reason they consider that the responsibility for constructing and working the cable should be borne by the Governments of Canada and Australasia, to whom any profits which may hereafter accrue from the undertaking would consequently fall; and that the aid to be given by the United Kingdom should take the form of an annual subsidy, which has hitherto been adopted by Parliament in promoting the establishment of important lines of telegraphic communication between different parts of the empire.

"In considering the question her Majesty's Government have had regard to the report of the committee of 1897. The estimates of initial cost and annual expenses put forward by that committee were £1,500,000 for original cost and £144,000 for total annual expenses. Against this it was anticipated, on the basis of the latest returns available, that the traffic receipts in the first year would amount to £132,000, leaving a deficit of £12,900, diminishing annually until it ceases altogether at the end of the third year. It is not, however, possible to act with certainty on these estimates, for the prices of materials have risen since they were made, and in other respects the cost of establishing the cable may possibly exceed the estimate of the committee. Her Majesty's Government have accordingly decided to offer, for a period not exceeding twenty years, an annual subsidy, calculated on the basis shown below, not exceeding a maximum limit of £20,000 in any year, on the following conditions:

"1. That the Canadian and Australasian Governments undertake to construct the line, and to provide in each year any further sum that may be necessary for its efficient maintenance and working.

"2. That the subsidy runs only from the opening of the cable for traffic, and so long as it is so open, with the allowance of a reasonable time for repairs in the event of interruption of communication.

"3. That the cable is, in accordance with a specification and samples to be approved by the Treasury and to the satisfaction of an officer appointed by the Treasury for that purpose, constructed, submerged in proper working order, and established with proper stations and offices at such places as the Treasury may approve, and effectually worked with a sufficient staff of proper and efficient officers, being British subjects.

"4. That messages of the imperial Government are transmitted in priority to all other messages at rates not exceeding one-half of those charged to the general public.

"5. That all rates charged to the general public, whether for messages to, from or between intermediate stations, or for through messages between this country, Australia and New Zealand are approved by the Treasury.

"6. That an account, duly certified and audited, is rendered annually to the Treasury as soon as possible after the anniversary of the opening of the cable showing—(a) The net traffic receipts in the past year for messages sent over the line after the deduction of money paid out for the further transmission of messages on other lines. (b) The expenses incurred in the same year, including interest, sinking fund, maintenance and repairs and working expenses. The Treasury will cause this account to be duly examined and will pay over to such person as the associated Governments of Canada and the Australasian Colonies may nominate in their behalf five-eighteenths of the amount by which the net receipts shown by this account, after examination, shall fall short of the amount of the expenses, subject to the maximum limit named above.

"7. That the cable is worked in accordance with the international telegraph convention of St. Petersburg of the 10th (22d) July, 1875, and the regulations in force for the time being thereunder.

"Her Majesty's Government trust that the liberal arrangement proposed will meet the views of the colonies and that it will be accepted as a proof of their cordial desire to cooperate with the colonial Governments in any undertaking of general concern, even though the colonial interest in the matter may be more direct and apparent than that of this country."

The proposal has not met the views of the colonies, which had, indeed, offered their maximum contribution in the arrangement to which Mr. Chamberlain's letter is England's reply. It is certain that no real public pressure will be brought on him to advance on his offer, so that the next move still rests with the colonies. With rapidly approaching financial problems of her own, England is not disposed out of motherly sentiment to be milked much longer by her colonies, Australia in particular.

The prevalent view among Englishmen on proposals to make exceptional sacrifices for the colonies may be gathered from the general cheers of the House of Commons at Sir Michael Hicks-Beach's reply to the ultra-Imperial Unionists who sought to have Australian wines exempted from the new increase of sixpence a gallon in the import duty. He said in so many words that favors and exemptions were not due to colonies which still levy protective duties against British goods.

At the same time as the correspondence on the financial side of the Pacific cable problem comes the report of the House of Commons Committee on the general question of feasibility, route, cost, &c. Lord Selborne, who is Mr. Chamberlain's principal secretary and Lord Salisbury's son-in-law, presided over the committee. Its report says that no one disputes the practicability of the project from a technical point of view, although the depth probably, in places more than 3,000 fathoms, is as great as that in which any cable has hitherto been laid. The committee recommends that the route should be from Vancouver via Fanning or Palmyra Island, Fiji and Norfolk Island, with branches from the last-named station to Queensland and New Zealand. There would be a decided advantage in taking the cable via Honolulu, but this would involve a departure from the principle of using only British territory for landing stations. The length of the cable, allowing 10 per cent. for slack, would be 7,986 nautical miles. The utmost speed at which it will be possible to send a message through from Canada to Australia will be forty letters a minute. But messages can be sent from both ends at the same time. The total annual capacity of the cable would be 1,620,000 words. The India Rubber, Gutta Percha and Telegraph Works Company has offered to lay the whole cable for £1,517,000. This includes the erection at each station of a suitable dwelling house and operating room, with duplicate sets of all proper instruments, and also the use of two cable-repairing ships, with the cost of maintaining them and the cable for three years. The working expenses are estimated at £22,000 a year, repairs at £40,000 and the maintenance of two repairing vessels at £30,000 a year. With interest at 2½ per cent. on a capital of £1,800,000, the total annual cost of the cable would be £154,464.

As to the revenue, if the existing rate to Australia of $1.15 a word is taken as a basis, and the existing rate of 37 cents from London to Vancouver is maintained, the Pacific cable would be able to charge 78 cents a word. On an estimated traffic of 750,000 words in 1896, and allowing an increase of 10 per cent. of business in 1900, the cable would in its first year of working earn £178,457, giving a credit balance of £33,550.

The British Government's conditional subsidy of $100,000 a year is, of course, no offer at all. It stands out for half rates on all its own messages and would only pay the subsidy to make up a deficit on the annual revenue from the cable. Moreover, it could always take its subsidy out by an abundance of messages from the Colonial Office, which would actually make a saving on its present outlay if it could get all its despatches carried at half price for a payment that could never exceed $100,000 a year and would gradually decrease till it vanished the moment that general business made the cable self-maintaining.

A new process of color photography devised by Mr. William Friese-Greene is beginning to arouse interest. The method, which is made public to-day for the first time, makes it possible to take photographs in a camera and to project them on to a screen in such a way that the colors of the original subject are reproduced in all fidelity. It is not pretended that this is an invention in itself, but it is based on novel ideas. The best known process here—that of Mr. F. E. Ives, an American—while it does not produce actual color photographs, yet will throw a picture on a screen in natural colors. A visitor who saw Mr. Friese-Greene's process at work in Chelsea this week vouches for the genuineness of the methods and the quality of the results.

A photographic negative of a scene or picture is taken by means of a camera, or photographic apparatus through a transparent material or medium bearing three or more primary colors. The negatives thus obtained will contain not only the several colors employed, but also all the varieties of color caused by the blending of these colors. Then by obtaining a transparency in the usual way from this negative and projecting the image from the transparency upon a screen by means of a lantern through a transparent medium, colored and constituted similarly to the transparent medium employed in taking the negative, the image appearing on the screen will show all the colors of the original scene or picture. The novelty in Mr. Friese-Greene's method is the transparent medium employed. This consists of a disk of glass composed of differently colored sectors. In taking a photographic negative, or in projecting a transparency obtained from such negative, this disk is caused to revolve rapidly in front of or behind the ordinary lens of the taking or projecting apparatus, the colored parts of the disc moving successively past the lens during one and the same exposure.

One form of disk used by Mr. Friese-Greene consists of two circular glass plates divided into three compartments, the space between being filled with liquids of different colors (preferably blue, green and red) and of different intensities. Care, of course, is taken to prevent the liquids from escaping while the disk is being whirled around. Instead of making the three sectors containing the three differently colored liquids of equal area, and varying the active effect of the exposure of the colors by varying their intensities, Mr. Friese-Greene also employs liquids of uniform intensity of color, and varies the exposure by varying the areas of the sectors. In such cases the green sector should have about half the area of the red sector, and the blue sector be very much smaller than the green. The proportions will depend to some extent upon the particular kind of sensitive film employed, but they will be chiefly regulated according to the length of exposure required for photographing the several colors, an important point being that all the colors should have an equivalent amount of exposure, having regard to the fact that blue requires much less exposure than green, and green less exposure than red.

In another form of disk colored liquids are not employed; instead, the disk is composed of three differently colored sectors of single thicknesses of glass and other transparent material, and the sectors are made of different areas corresponding to the requisite exposures of the respective colors. In projecting the image upon the screen a similar disk to the one employed in taking the negative is used. The disk may be rotated either by hand or by an electo-motor, and it is not until a good speed has been attained that the colors will come out on the screen.

Mr. Friese-Greene does not pretend that his system is perfect yet. The records of the British Patent Office fail to show that any inventor has before conceived the idea of varying the size of the three color screens or of rapidly rotating the disk containing the screens before or behind the negative. When the transparency taken behind the disk described above is viewed in the ordinary way on the screen no colors are to be seen. It is only when the color disk is set revolving behind the transparency that the colors appear. The process can be applied to all branches of ordinary or animated photography. Instantaneous photographs or pictures of persons or animals are quite possible.

## EXPERIMENTS WITH GAME FISH.

**Attempt to Cross the Ouananiche with the Salmon from the Sea.**

QUEBEC, May 19.—A remarkable experiment is now proceeding at the Government fish hatchery at Tadoussac, at the mouth of the Saguenay. It has been observed that the famous ouananiche or fresh-water salmon, caught in large numbers in Lake St. John and its tributary waters, though quite as gamy as the salmon from the sea, are seldom more than about eight pounds in weight. Accordingly, it has been decided to cross the ouananiche with the salmon, and for this purpose 30,000 salmon eggs have been impregnated with the milt of the ouananiche and the fertilization of the ova is understood to have been successfully accomplished. The young fish are to be liberated in Lake St. John waters, and are expected to become larger specimens than the ouananiche now taken in the lake. It is uncertain whether or not there will be any natural increase from these fish, for some naturalists contend that mules or hybrids do not breed, and never occur naturally. In that case the new fish will have to be perpetuated by constant additions of the peculiar product of the hatchery.

It was at one time proposed to achieve the object now aimed at by crossing the ouananiche with the land-locked salmon of the Sebago lakes. This idea was abandoned because it was feared that the product would partake of the less game qualities of the Maine fish, which are rarely surface feeders and usually taken upon a troll, while the smaller but more gamy ouananiche take the fly and resist capture much in the same way as the Atlantic salmon.

## YALE'S POLICE FORCE.

**Experiences of Two Lone Bluecoats on the Campus with Several Thousand Students.**

NEW HAVEN, May 20.—Mr. Donnelly and Mr. Wiser will finish their fifth year at Yale next month. The fact that they will not graduate even this year may cause strangers and old graduates to think that these two men must be very dull, but in justice to the mental qualities of the men it should be explained that they are taking a special course in fellowship and in the study of human nature. Their graduation, if the wish of the student body is heeded, will not take place for many years, for Mr. Donnelly and Mr. Wiser are campus policemen.

They first patrolled the campus for a few days before the beginning of the fall term in September, 1894. Before this thefts of property valued at thousands of dollars had occurred on the campus. Students had missed wheels, sweaters and books. Vagrants, peddlers and other objectionable persons had been allowed on the college grounds and had access to the students' rooms, and so were able to steal if they desired with little fear of detection. One night, soon after the officers came, they discovered a circle of tramps hidden in the basement of a dormitory. To get rid of suspicious characters and also to protect the property of the students the faculty decided to have policemen on the campus.

At first the innovation met with disfavor among the undergraduates. Believing that they were to be spied upon and held in restraint by the officers, the students made life miserable for the policemen during the first year. On every possible occasion the young men surrounded the officers, cross-examined them as to why they were on the campus and the extent of their authority and subjected them to every kind of chaffing. Often the policemen were called upon for speeches, a field in which they exceeded their own expectations. In the face of such opposition the policemen were obliged to use tact and patience in order to win the friendship of the young men. At first, with every one against them, it was uphill work. As Wiser, who can quote the Bible on any occasion, said: "We were like Gideon's army of 300 men opposed by a Midianite force of 300,000." But these odds were overcome. That the policemen were successful is shown by the esteem in which they are now held by the college men.

As the duty of the patrolmen is to protect college property, they are paid by the college corporation, yet, as special officers, they are under the authority of the city Police Department. They come on the campus in September and stay until July. Every night during the collegiate year they report at dark and remain on duty until 5 in the morning. Their duty principally is to guard dormitories, to eject suspicious persons from the campus, and to prevent the students, after athletic victories, from tearing down the buildings for firewood. Since the policemen have been on the campus thefts have decreased, and the tramps, bootblacks and sharpers who formerly infested the grounds have disappeared. Both officers are well-built men, and have shown themselves good runners. Willis G. Wiser is 40 years old, comes from Illinois, and was an organ maker until eleven years ago, when he joined the New Haven police force. Of a quiet disposition, he is deeply religious. His partner, James E. Donnelly, 43 years old, comes from Westbury, Mass., is the orator, and has often been a Daniel Webster to the members of the debating societies in college.

The office of this campus police department is in South Middle of the old brick row. Twelve feet square, the room is carpeted, has three or four easy chairs for visitors, and also an office desk. Opposite the door is a large chest with the sign: "Police Department." Despite the threatening appearance of this box to freshmen, it is only a clothes chest. On the walls of the room are photographs of Yale athletic teams of many years. Two class pipes of clay are placed above a silk banner bearing the letters "Yale '98." A tank of ice water, which is the only available one after dark, is responsible for many friendships of students with the officers.

Many stories have been collected by the policemen during their five years' service. After midnight one morning they discovered a crowd of seniors in front of a dormitory, turning the crank of a hand organ. Every minute the officers expected the owner of the instrument to appear, but they could not interfere without evidence of a theft, and therefore they let the musicians serenade every building on the campus. At last the young men disappeared into Welch Hall and permitted the inmates there to sleep no more that night.

In the first month of service the officers thoroughly scared one college man who attempted to destroy the newly erected electric light poles by fire. At that time the electric lights had just been placed on the campus, greatly to the dissatisfaction of the students. One night the officers saw a wagon loaded with barrels and kindlings near the seniors's fence. A member of the class of '97, who was carrying the wood to an electric light pole, caught sight of brass buttons in the dark just as the officers discovered him. He jumped into the wagon, lashed the horse into a gallop and disappeared in the night. Every twenty feet the swaying wagon threw out a barrel, so that the officers spent the remainder of the night picking up kindling wood.

About the same time the policemen found a party of sophomores on the fence trying to sing. Although rather hoarse, the students had managed to carry the air of some college song until the appearance of the bluecoats. Not knowing just how much authority the policemen possessed, the young men gathered enough courage to ask:

"May we sing?"

"Certainly," said the officers.

The song started, wavered for a moment, and then died away. One after another the men got off the fence without a word and started for their rooms. The two policemen had been too much of an audience.

## POSTAL REVENUES.

**Standing of the States with Respect to Average Contributions.**

The total postal receipts of the United States for this year—a record breaker—are estimated at $100,000,000. Last year they were $87,640,000, New York contributing the largest item of the total, $15,000,000, and Alaska the smallest, $15,000.

New York collects in postal revenues more money in a year than does any other State, Illinois coming second; but in the number of post offices New York is largely exceeded by Pennsylvania, which has 5,100 to 3,700 in New York, and Ohio, with 3,400, is not very far behind. There is published in Washington a table showing the average amount contributed by each inhabitant of each State to the postal revenues. This constitutes a pretty fair gauge of the intellectual development and activity in each State. At the head of the list is Massachusetts with an average last year of $2.30 per inhabitant. Next follows New York with $2.27, then the District of Columbia with $2.16, Colorado with $1.93 and Connecticut with $1.80. Thirty-third in respect to the number of Post Offices, Colorado is fourth among the States in respect to the average amount of collections for postage. They amounted to $926,000 last year, and will certainly exceed $1,000,000 this year. It is observable that all the Pacific States appear to pay for a large amount of correspondence. California, twenty-first in the number of Post Offices, is sixth among the States and Territories in the per capita collection. Nevada, forty-seventh among the States in the number of Post Offices, is eighth in the number of collections, the seventh State on the list being Vermont.

The postal collections in Illinois amount approximately to $1.50 per capita a year and the other States with the same amount of collections per capita are Rhode Island, Montana, New Hampshire, Maine, and North Dakota, the New England and the Northwestern States having in this particular many points of resemblance. Pennsylvania collects about $1.30 per capita, New Jersey $1.25, and Wyoming, Michigan, Maryland, Minnesota and Ohio have about the same amount. Missouri, Iowa, Oregon, Idaho and Kansas, four agricultural States, contribute an average of between $1.02 and $1.14 to the postal revenues for each inhabitant. With a present population of probably 75,000,000, the contribution of $1 of postal revenue each would represent a total of $75,000,000, or $12,000,000 less than was taken in last year. The present average is about $1.33 per capita. Two States widely separated and differing from each other in all essential particulars of business, Utah and Wisconsin, collect identically the same amount per capita in postal revenue in a year. Utah has 331 Post Offices; Wisconsin has nearly 1,900; but the per capita collections of the two States are the same, 97 cents per year per inhabitant. Nebraska and Florida have the same collections per capita; so have South Dakota and the Indian Territory. Delaware collects 85 cents per capita from its 172 Post Offices, and Indiana, which has 2,200 Post Offices, collects 78 cents. Virginia, fourth among the States in the number of Post Offices (it has 3,300), collects 68 cents, Oklahoma 65, West Virginia 64, Louisiana 65, Texas 57, Tennessee 55, Georgia 53 and Kentucky 49. Kentucky stands very low among the States in its contribution to the postal revenues, collecting in a year about the same amount as the State of Kansas and less than half as much per capita. Kentucky has 2,800 Post Offices, 2,000 more than Massachusetts, but for every dollar of postal revenues collected in Kentucky, Massachusetts collects $5. Next below Kentucky is Alaska with only 38 Post Offices, but an average revenue per inhabitant of 43 cents a year. After Alaska is North Carolina, then Arkansas, then Alabama with an average of 35 cents, then Mississippi with an average of 31 cents, though it has 1,800 Post Offices, and finally the fifty-first and last on the list of States and Territories, South Carolina, with an average collection of only 25 cents per inhabitant.

# LYNCHING BEE SPOILED.

## TOO MUCH ATTENTION PAID TO THE ETIQUETTE OF THE OCCASION.

**Pete Lansing, Horse Thief, Wanted the Diamond Centre Vigilantes to Acquit Themselves in Style When They Hanged Him and He Got Off with a Run for His Life.**

FRESNO, Cal., May 5.—"I don't take the personal interest in lynchings that I used to," said Uncle Tom Atkinson, as he sat on the veranda of his hotel talking over the recent lynchings in the South. "It isn't entirely because I am getting old, but the last lynching party I took part in disgusted me with the whole business. You see, Pete Lansing stole a horse and we got a party together and started out after him. Pete gave us quite a chase, but at last we struck a hot trail near Pine Hills, and then we gained on him so fast that when our little party of Vigilantes swept around the curve at the foot of the hills Pete was only half a mile ahead and pushing his horse at a gallop across the prairie. We called to him to stop. Of course, he couldn't hear us at that distance, and as he knew we wanted to hang him for horse stealing, he wouldn't have stopped if he had heard, but it was the first time since we organized that the Diamond Centre Vigilantes had been called out, and we wanted to do things in proper style. So we formally summoned Pete to surrender. Dick Evans, our leader, wanted everything done exactly right, but I and some of the other boys think he was too particular on this occasion. A swell bon-ton society affair is one thing and a lynching bee is another, and there isn't any use trying to combine them.

"However that may be, after we had called upon Pete to stop we thought we had done all that 'etiquette,' as Dick called it, required, and we began to pump bullets at him. Pretty soon one of the bullets struck his horse and it tumbled over. Pete knew there wasn't any use running after that, so he lit a cigarette—he was a sort of a dude in some ways—and waited for us to come up.

"'Guess we've got you this time, Pete,' says Dick.

"'Looks that way,' replies Pete, as calm and unconcerned as if he didn't have any part in the show. 'What is the next thing on the programme?'

"The nearest trees were about half way up the Pine Hills and we allowed the first thing to be done was to take Pete to where the trees were. 'After we reach a tree we won't have much trouble finding out what to do next, Mr. Pete Lansing,' said one of the boys in an ugly kind of a way. The man who spoke had lost three or four good horses that season and was feeling kind of sore over it, but Pete looked quite hurt at being talked to in that kind of fashion and Dick Evans spoke up:

"'That'll do for you, Tom. That's no kind of a way to speak to a man who is almost dead.'

"But our troubles had only begun. Pete's horse was dead and he swore that he wasn't going to walk to the Pine Hills. 'Nobody ever heard of a man tramping a mile to his own hanging. You fought me fair and square,' says Pete, 'and I don't kick on that, but I'll be damned if I am going to hoof it across this prairie. A man in my position ought to have a little politeness shown him.'

"Jim Haly, who runs the Crescent saloon, happened to have a deck of cards in his pocket and he proposed that we throw around and the low man give up his horse to Pete. We all agreed to this, and Pete being in one way our guest we let him deal. That made a delay, for Pete dealt himself the low hand, and as he didn't have any horse we had to deal again. One of the boys got stuck this time, so Pete took his horse and we started out for the Pine Hills.

"It was pretty dark when we reached the Hills, but one of the party got out a rope and we thought the business would be over in a few minutes. But here Pete made another kick. For a man who was going to be hanged he was the most particular, bothersome fool I ever ran across.

"'I don't want to be hung right here alongside of the road where everybody will see me. Take me a little ways into the woods and do the job there.'

"'But we want your body to be an example,' says Dick Evans, sort of doubtfully.

"That made Pete mad. 'Example be damned,' he snarled. 'I takes a horse, you boys catches me and strings me up. So far all right. But I don't want my body used as the tag end of a Sunday school lesson. Besides, what kind of a thing would that be to show strangers thinking to invest their money in the growing town of Diamond Centre? You fellows ain't got any patriotism. Example! Example be hanged!' says Pete scornfully.

"There seemed to be a lot of sense in what Pete said, so we pushed on about a hundred yards into the woods. It was pretty dim outside by this time, and in among the trees it was really dark, but Pete was riding in the middle of the party, and it didn't look as if there was any way in which he could escape. Pretty soon we reached a tree with big boughs hanging low down, just the tree for what we wanted.

"'I guess this will do all right,' says Dick, who was riding ahead.

"We stopped and one of the boys threw the end of the rope over the bough of the tree, while I fixed the noose about Pete's neck. Pete had been riding with his head down as if he was thinking pretty hard and not paying much attention to what was going on, but when he felt the rope about his neck he looked up, sorrowful and disgusted rather than angry.

"'I guess that this is the first time any of you boys have ever taken part in a festivity of this kind,' says he, sort of sarcastic like.

"We allowed it was.

"'Well, it is a good thing you have me, a resident of Diamond Centre, to try it on first, for you would make the camp a laughing stock if you acted this way with a stranger. I wish I had time to give you a rehearsal,' says Pete, kind of regretfully, 'but it's growing too dark. Why, I actually believe you fellows would jerk a man over the pearly gates without giving him a chance to say a few last words and speak a little prayer.'

"We all was silent at this, for we had forgotten all about that part of the programme. So Pete dropped off his horse and went over to a little bush a few feet away from the tree we had thrown the rope over. Then he began to pray. I don't claim to be an authority on prayers, but I have always said that was no slouch of a prayer. Pete began with the Diamond Centre camp and recommended every man, woman and child in it to the Lord. Most of them needed it, but it made a long prayer. Then he prayed for the Sheriff of the county, and after that for the Governor of the State. From the Governor he went to the President. Then we thought he was through and everybody drew a long breath and prepared to get down to the regular business of the meeting.

"But Pete opened his eyes and looked at us reproachfully, and then started in as if he was just getting his second wind. The Queen of England, the Emperor of Germany, all the big foreign ducks Pete could think of were remembered to the Lord, and then, just as we were getting so impatient we couldn't have stood it much longer, Pete polished off his prayer with a general sort of blessing which took in all the parties he hadn't mentioned by name. It was a good prayer and covered the ground, but it took an awful long time.

"There didn't seem to be anything to interfere with 'the work we had assembled together to perform,' as Pete styled it in his prayer, when all of a sudden Pete cried out:

"'My God, boys. The woods are on fire.'

"We all looked as hard as we could, but didn't see anything.

"'Yes, they are,' said Pete. 'Look, you can just see the blaze away off to the northwest.'

"Now, Pete had sort of entered into the spirit of the occasion so cheerfully and seemed so anxious to have the first lynching of the Diamond Centre Vigilantes go off just right that none of us suspected him of being the treacherous hound he really was. We all looked off to the northwest as hard as we could for a minute or two.

"'Your eyes are off, Pete,' says I, turning around to where he had been. But there wasn't any Pete, only away down the gully we could hear some one trampling down the bushes and running for all he was worth.

"We all rushed into the underbrush, but it wasn't any place for horses, besides it was too dark to see much of anything. That thief of a Pete Lansing had run away from us in the first place until his horse was shot and then he had said he couldn't be hung anywhere except on the Pine Hills, and then, all the time pretending that he was anxious for the credit of the camp, he had prayed until it was too dark for us to see anything. He was nothing but a hypocrite and played it low down on the boys who had always treated him right and were trying to send him off in good style. What became of him I don't know and don't care. None of the Diamond Centre boys ever heard of him again.

"Two or three times since then the boys have wanted to get up lynching parties on appropriate occasions, but I have always said: 'No; if you catch a man cheating at cards or stealing a horse shoot him. If you don't catch him tell the sheriff. But as for lynching parties count me out. I am disgusted with them.'"