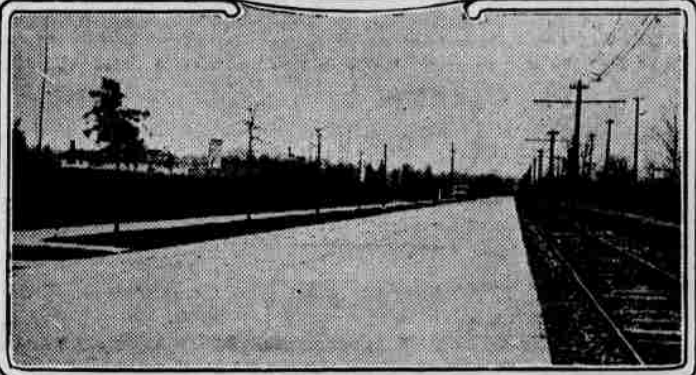
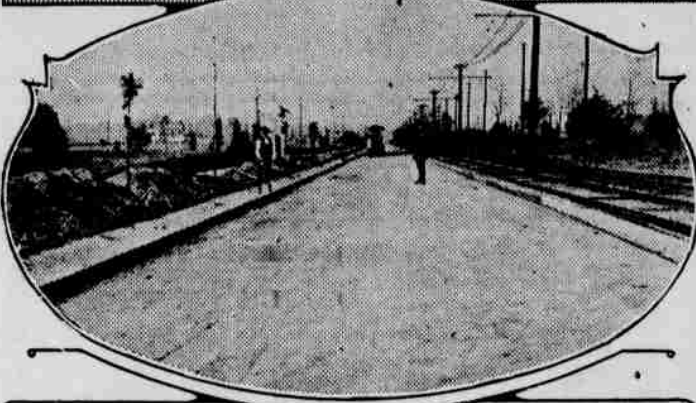
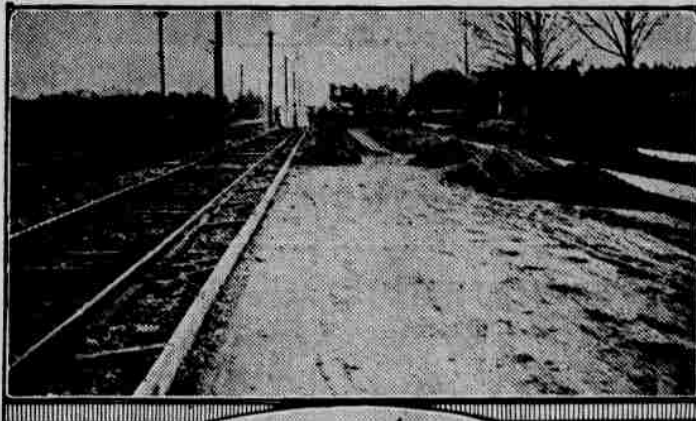


CHIEF ADVANTAGES OF CONCRETE ROADS



Construction of Concrete Road—Sand and Gravel Piled on Subgrade Ready for Use—Subgrade Prepared for Concrete Pavement—Road After Nearly Two Years' Service.

Concrete roads have shown a marked increase in popularity during the past five years, according to the road-building specialists of the U. S. department of agriculture. In 1909 there were 364,000 square yards of such roads in the United States, while for 1914, the amount is estimated as 19,200,000 square yards.

The durability of concrete roads has not been proved by actual practice because there are no very old pavements as yet in existence, but from the condition of those which have undergone several years' service, it seems probable that they will be found to wear well.

The principal advantages of concrete pavements which have led to their increased popularity are:

Durability under ordinary traffic conditions.

A smooth, even surface offering little resistance.

Absence of dust and ease with which it may be cleaned.

Comparatively small cost of maintenance until renewals are necessary.

Availability as a base for another type of surface if desirable.

Attractive appearance.

On the other hand, concrete as a road surface is noisy under horse traffic, and has a tendency to crack. Unless these cracks are cared for at once, they lead to rapid deterioration of the adjacent pavement and finally require difficult repair work.

In the past efforts have frequently been made to overcome these objections to a certain degree by covering the concrete pavement with a bituminous wearing surface. At the present

time, the specialists in the department of agriculture hold that this cannot be economically justified, although it is possible that future investigation may change the situation in this respect. In the present state of road science, however, it seems that where traffic conditions are such that a bituminous surface on a concrete road is practicable, a bituminous surface macadam road would be equally practicable and certainly cheaper. Where traffic which is too heavy for macadam road uses a bituminous concrete road, the bituminous surface is likely to give way and the uneven manner in which it falls tends to produce excessive wear on portions of the concrete. For a successful concrete road, hardness, toughness, and uniformity are the most essential qualities. These can be secured to a great extent by care in the selection of the constituent materials and the proportions in which they are mixed. Sample specifications are included in the bulletin, No. 249, Portland Cement Pavements for Country Roads. These specifications are believed to typify the best engineering practice as it has been developed up to this time. They cover such points as materials, grading, subgrade and construction.

Weaning Time.

Weaning time is from six to twelve weeks. If the sows are to be rebred at once, the pigs should be weaned at eight or nine weeks of age. If one litter per year only is planned, the pigs may be allowed to run with the sow until twelve or fourteen weeks of age.

WHITE RUSSIAN PUREST SLAV

His Racial Habitation is the Most Backward Region of the Empire of the Czar.

A sketch of white Russia, the first part of old Russian soil to feel the power of the invader, is given in a statement issued by the National Geographic society.

"White Russia comprises four Russian governments, Vitebsk, Smolensk, Moghileff and Minsk. It is said that the name is derived from the predominant color of the peasant dress. This division of Russia is bounded by the Pripet river basin on the south and by the Duna, or southern Dvina, on the north. It supports a population of about seven and one-half million, two-thirds of which is white Russian and the rest Lithuanian, Jewish and Polish. Here, likely, is to be found the purest Slav type, almost unblended. This region, blanketed by swamps and marshes, and smothered in forests, is one of the poorest, most backward regions in European Russia.

"Finns dwelt here before history began for Europe. They were expelled by Lithuania, who in turn gave way before migrating Slavonic tribes. The country finally passed back to the Lithuanians, then to Poland, and was won piecemeal by Great Russia. Polish oppression and religious persecution worked a wholesale desolation here, and thousands of peasants fled into Russia, while those who remained intrigued for Russia's coming. The whole of the region was not annexed by the Great Russians until the end of the eighteenth century. Starvation has swept this land again and again with as terrible effects as those experienced by India in the grip of famine.

"The White Russian is not of so sturdy a build as the Great Russian, nor so comely as the Little Russian. He is less aggressive than his northern neighbor, and more heavy than his southern neighbor. His hair and eyes are light, and his face is generally drawn. The garment peculiar to him is his white overcoat which he wears on all special occasions as proudly in sweltering July as in the winter. His villages are small, isolated and badly kept. His homes are primitive. His fight for existence is a bitter one. From his ranks are recruited the workmen for the hardest, least-paying tasks of the empire."

Victorian Hobby.

The announcement offering for sale the wedding shoes of Queen Victoria recalls the fact that her majesty was a keen collector of historical relics. At a sale held in November, 1899, she commissioned a well-known dealer to secure for her a walking-stick carved to represent "Wisdom and Folly," once the property of Prince Charles Edward. The royal agent had carte blanche, and the stick was knocked down to him for £180. This was a monstrous price when we consider that shortly before the young pretender's dirk, with flint-lock pistol attached, realized only £3 15s; while the great Rob Roy's claymore, made by Andrea Ferrara, with its shark's skin grip and all, went for £27 16s. At the Stuart exhibition organized in London some twenty years ago a number of most interesting exhibits came from Queen Victoria's collection.—Dundee Advertiser.

The Thief and the House-Dog.

A thief came in the night to break into a house. He brought with him several slices of meat, that he might pacify the house-dog, so that he should not alarm his master by barking. As the thief threw him the pieces of meat, the dog said, "If you think to stop my mouth, you will be greatly mistaken. This sudden kindness at your hands will only make me more watchful, lest under these unexpected favors to myself, you have some private ends to accomplish for your own benefit, and for my master's injury."—From Aesop's Fables.

USED BRAINS TO WIN

HOW ATHLETE ACHIEVED TRIUMPH IN RACES.

Ted Meredith of University of Pennsylvania Had Carefully Thought Out Methods That Brought Him Victory in Contests.

There is a belated story of how Ted Meredith of the University of Pennsylvania defeated Bill Bingham of Harvard in the half-mile race in the intercollegiate championships, which carries with it a lesson valuable to participants in practically all lines of sport, the New York Times remarks. Meredith, it will be remembered, won both the quarter and half-mile races.

The quarter was won in his usual style. Meredith allowed one of his competitors to go out and make the pace, and then came like a streak in the last furlong and won.

When it came to the half Meredith completely reversed the order of things. He raced at top speed in the first quarter and had all the rest of the field on their toes and practically beaten, doing the quarter in :54. He then slowed down and even allowed a couple of his competitors to pass him, content with the fact that Bingham, whom alone he feared, was plugging along in the rear, hopelessly out of it. With him disposed of, Meredith again sped up in the last furlong, caught and passed the two who had headed him for a short distance, and won very cleverly without being exhausted.

Meredith's overwhelming triumph was due to the use of brains coupled with his powers as a racer. Before the race he had taken the trouble to find out the way in which Bingham, the Harvard man, ran his races. He discovered it was his habit to take it easy in the first quarter, running the distance in about a minute flat, and reserving himself for the final quarter, which he would do in the neighborhood of fifty seconds. Meredith's heartbreaking pace in the first quarter completely upset Bingham's plan for the race, and so bewildered the fleet Harvard runner that the latter had no time to think out and put into operation a new plan.

John McGraw's success as a baseball manager has been entirely due to exceptionally acute brain power. From the beginning of his career on the diamond he analyzed every play made in a game in which he participated or witnessed. It was the study that developed the baseball strategy he made his own, and which made him so much of a clairvoyant in foreseeing the "breaks" of a game for or against his team.

If Jim Jeffries had been possessed of enough gray matter he might never have lost the heavyweight championship to Jack Johnson. But the punch in the eye in the second round, which was the turning point in the contest, angered him. After that it was brute force against brute force.

Football is so entirely a matter of brains that everybody familiar with sports admits that the best eleven of the physical boxers or wrestlers, for instance, would have no chance whatever against an eleven such as represents any one of the great universities on the gridiron each fall.

The thinking athlete gets more sport out of the game he happens to indulge in, also, than he would if merely an exceptionally good natured athlete or one who is able to absorb the ideas of a trainer and carry them out in purely mechanical fashion.

To the young athlete the lesson modern sports teaches us: Attend as well to the cultivation of the mind as to the training of the body and its muscles if you would enjoy competitive athletics to the full. The first is as necessary as the last to become superexcellent at any sport, to get the greatest enjoyment from sport and to cope with its emergencies.