

saving two handlings; and the truck people only charge a half cent a gallon for the service.

The saving on this milk alone amounts to \$195 a day, to say nothing of the saving in time for the farmers, cost of teams, etc. This saving amounts to \$71,000 a year.

**More Than Pays for Road**

If this be compared with the cost of the thirteen miles of road, say, even if the road cost them at to-day's high prices, \$20,000 a mile, that would equal \$260,000; interest at 4 per cent., \$10,400; twenty-year serial, \$13,000 a year; or an annual charge, including interest, of \$23,400 for a saving of \$71,000 to the farmers on the milk alone.

If you figure their savings on cabbages alone at \$150 a year, and leave out the thirty days that the teams could be used for something else, that equals a tax rate of \$1 per \$1,000 on a \$150,000 valuation, which would be quite an extensive farm.

In one of our Massachusetts towns that raises apples, they had about an eleven-mile haul to the railroad station. The teamsters tell me that in the old days they hauled apples at fifty cents a barrel. Since the roads have been improved, they are now hauling the apples at twenty-five cents a barrel and are hauling three times as many barrels to the load; so the teamsters are collecting fifty per cent. more money, and the farmer is only paying fifty per cent. of what he formerly paid per barrel. Also on the return load, as the grade has been improved as well as the road, they are hauling three times as much grain or coal back to the town, which happens to be the town of Ashfield that I mentioned above.

I stopped some of the farmers about ten miles out from the city of Detroit, in Wayne County, Michigan, and asked them what the concrete road built there had done for them. They differed. Two told me that they hauled three loads a day over an ordinary country road in bad weather, and that when the road was improved they loaded what would equal the three loads onto one load, and carried it into town with much greater ease for the horses than when they had only one-third of the load. Five or six others said about the same, only that they hauled two loads to the one load.

**Road Brings Twenty-six New Houses**

In many parts of Massachusetts, we are now hauling an average of three tons to a load, with two horses, where before the road was improved they could only haul three-quarters of a ton. This is in the sandy section of the state. On the ordinary dirt road, the amount that can be hauled has more than doubled; and where grades are improved as well as the road, the amount has trebled.

In France they consider three tons as a one-horse load. In order to enable horses to pull three tons they had no grades on the main roads exceeding five per cent. They always figured formerly that it cost eight cents per ton per mile to haul farm products. We figure in this country that it costs twenty-five cents per ton per mile over an ordinary road.

I might add also that on one stretch of road, 1½ miles long, just completed last fall in Arlington, there have already been three streets opened up connecting with it; farming land has been cut into building lots; and twenty-six houses, costing from \$2,500 to \$4,000 each, were constructed before the road was completed.

On a road that we built in Gloucester, a mile long, 28 houses out of the 38 were repainted, four new piazzas were added, and a number of improvements like fences, etc., were built, greatly improving at any rate the appearance of the locality.

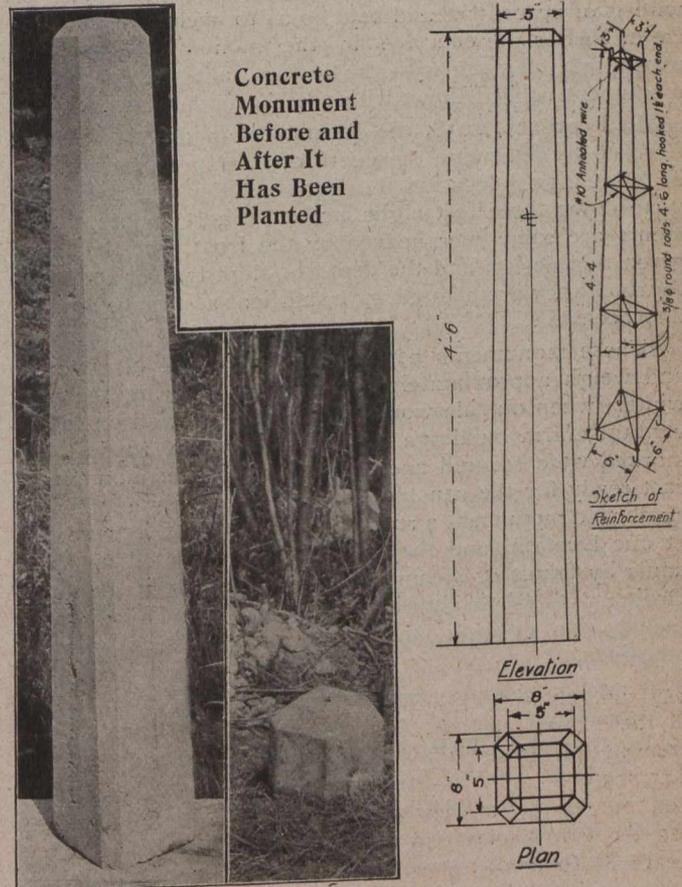
**HIGHWAY SURVEY MONUMENTS**

By Geo. Hogarth

Engineer of Highways, Province of Ontario

It is necessary on provincial highways that the limits of the road allowance should be monumented in an easily interpreted manner, in order that the companies and people interested in the highway may know or may be able to ascertain readily the lines marking the sides of the road. Such monumenting is a convenience to the people. When new fences and buildings are constructed, it is then a simple matter to identify the boundary of the land fronting on the highway, and the fence can be built accordingly.

Encroachments on highways by fences and buildings are not unusual and in many places the actual width of the



Concrete Monument Before and After It Has Been Planted

road between fences is frequently less than the registered width. To provide for the different public services, such as power, telephone and telegraph lines, requires that every foot of width be used to advantage, so that the delimiting and monumenting of the road is an important matter.

Monuments suitable for such work should be permanent so far as possible; they should be indestructible and of such a size as to discourage their easy removal. They should also have a composition which would not prove tempting to souvenir hunters.

Evidently wood is an entirely unsuitable material as it is not permanent and is liable to easy destruction or removal. A metal post was considered by the Department of Public Highways of Ontario, and the excellent monuments of the Dominion Lands Survey were carefully examined and the costs enquired into. Metal posts used by other Dominion and municipal departments and com-