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WIDE TIRES AND THE HIGHWAYS.

Some years ago we heard a great deal about the advantage of using wide tires for wagons carrying heavy loads. Some municipalities introduced by-laws calling for four and five-inch tires, but usually the by-law did not get past the second reading. Ratepayers could not see the advantage of sustaining immediate loss that good roads might result in future years.

Experiments that have been made go to show great saving in traction effort where wide tires have been used on earth, gravel or macadam roads, and with this saving in traction effort there is a marked improvement in the condition of the road, rolling it smooth, even and making it almost impervious to the rain.

The Missouri Experimental Station gives as a result of a number of experiments the following:—

Three earth roads gave:—	
1 1/2-inch tire pull	86 lbs.
6-inch tire pull	61 lbs.
	—
	25 lbs.
Three macadam roads gave:—	
1 1/2-inch tire pull	71 lbs.
6-inch tire pull	55 lbs.
	—
	16 lbs.
1 1/2-inch tires gave:—	
On three earth roads.....	86 lbs.
Or three macadam roads	71 lbs.
	—
	15 lbs.

These results go to show that, although there is a large saving on improved roads, yet wide tires show a saving greater than that made by improvements.

In this country we make great talk about highway improvement. We are spending large sums on grading, gravel, and crushed stone. All of which is good. But more attention should be given to the question of width of tires.

If the user can be shown the advantage, the manufacturer will not be long in filling the want.

A NEW PUMP.

There has been installed at Dudley Port a pump novel in design and economical in operation. This pump depends for its lifting power upon the direct action of a gas explosion, and is the invention of H. A. Humphrey.

The pump, which comprises an iron U tube, is simple, and with few moving parts. The short leg of the U connects with the water supply and the long leg with the delivery tank, or pipe. In the open end of the short leg there is a conical-shaped combustion chamber, which is fitted with valves for supplying gas, air and an exhaust valve. The control of the valves is automatic and interlocking.