

## Comment by the Editor

### *HARD SURFACE*

Road building has some of the characteristics of a mathematical problem. Given certain facts, the master of numbers can arrange his data in such a logical order that the question is answered. Often it is essential to simplify the equation by finding a common denominator.

If various factors pertaining to traffic are known, an engineer can determine what kind of a highway ought to be built. Types of vehicles, speed of locomotion, density of traffic, availability of construction material, and economic utility all affect the solution. In reducing the problem of road building to final terms, a hard surface has always been the greatest common denominator.

Wherever the necessities of transportation can be supplied by simple, slow-moving conveyances, a highly improved roadway is neither needed nor prudential. The prairie Indians were satisfied with a beaten path, and the free-swinging Concord stagecoaches were convincing evidence of rough turnpikes. If the nature of commerce is a gauge of the complexity of civilization, then the density and mobility of population, the distribution of

goods, the means of transportation, and the nature of local resources can be measured by the condition of the highways. Extensive hard surfacing is proof of economic advancement.

Approximately a hundred years ago transportation conditions and forest resources produced plank roads. Those were the first hard-surfaced highways in Iowa. But at the time that style crossed the Mississippi, another form of hard surfacing achieved more substantial popularity. Railways for steam locomotives made plank roads for wagons obsolete. The plank-road fever might never have become epidemic on the prairie. The development of motor carriers, however, revived the demand for hard-surfaced highways. Back to private, free-steering transportation we have gone, but on roads of gravel and concrete instead of a wooden veneer.

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