

of those little bumps and holes which characterize a road repaired in the old-fashioned manner. These bumps and holes, small at first, will wear larger, and soon develope into good sized ruts, making the road very unpleasant to travel over.

It is conceded that a good reversible machine will do the work of from thirty to forty men in the ordinary work of road construction, thus effecting a saving of more than one-half over the old methods.

#### SUGGESTIONS TO OPERATORS.

In the work of operating a road machine, as in everything else, experience is the best teacher. . . . Machines are so simply constructed that any man with ordinary intelligence, after he has acquainted himself with the different adjustments, will, with a very little practice, be able to operate the machine well under all circumstances. A slow, strong motion is indispensable to good work.

#### REPAIRING.

A little timely work done in the right way is like "the stitch in time that saves nine." No matter how nicely and well a road has been made, travel, rain and frost all combine to destroy it.

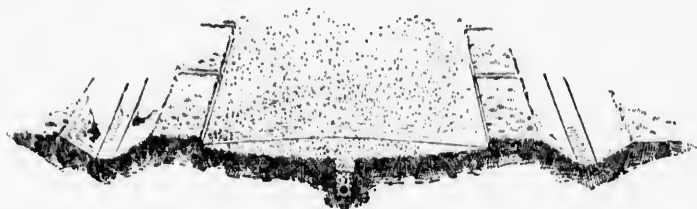


FIGURE 6. A GRAVEL ROADWAY WITH UNDER-DRAIN.

When clean gravel of good quality is used, this makes a very excellent form of country road. The centre drain may be either of field stone or tiles, and is made as already described in Fig. 4. The gravel should be clean and "sharp" so as to pack and drain quickly and should contain very little soft earth, which always holds water and forms mud. A gravel road is always improved by keeping the surface in proper form and by rolling with a heavy roller.

There is hardly a month in the open season when the road machine cannot be used to advantage in the road, but spring is the best time to do efficient work, because the soil is loose and roots of grass and weeds do not interfere. Every spring, before the ground becomes too hard, the road should be gone over thoroughly with a road machine; the ditches cleaned out, so that water may have a free