

instance, just as a wise man would prepare a solid foundation for his house; and that due regard must be had to the action and reaction of springs, as well as of surface water. Another paper is then given by Mr. Charles Green, of Cobourg, stating the process pursued in England in making a road over swampy ground, as follows:—

I do not profess to be scientific in the process of macadamization, but, with your permission, I will state what I have *seen* done in England on one of the principal thoroughfares into London,—the entrance from the South and East.

This piece of road over a space of five miles, was, within my recollection, one of the worst of the great thoroughfares, and I have witnessed many serious accidents therefrom.—The ground low and swampy the whole distance, reclaimed by embankments and ditches.

The process that I saw adopted, was the removal of the upper stratum to the depth of eighteen inches or two feet, then laying down *bavins* or *faggots* packed close, endwise across the road, to the depth of two feet more or less, to preserve the level as near as possible, but at all events to avoid holes or undulations of ground that would favour a lodgment of water,—the superstratum before removed, was thrown over the *bavins*, and found its way in the interstices of the *bavins*. It is fit to observe that this soil was of a sandy description, and from its non-adhesive quality, more readily deposited itself,—over this again was thrown common gravel, six to eight inches thick, which formed the road for use. The traffic soon solidified the whole,—wherever any part of the earth-covering sunk, the injury was repaired in *dry* weather with gravel. The convexity of the road was slight, the ditches were carefully kept in repair, to receive the water, and the road from being one of the worst, became one of the best around London.

It was after the formation of this road that Mr. McAdam commenced his system in England; the value of which appears to consist in

creating ample drains for water, the removal of trees from the road sides, where they would interrupt the action of the sun and wind; and the upper layer of his road to consist of stones broken to about two inches square, thus preserving angular pieces instead of round; the former having the greater tendency to hang together and solidify, than round substances.

The principal object to which I take the liberty of directing your attention, is the foundation, which, in the formation of the road above referred to, consisted of *Bavins* and *Faggots*. The opportunities afforded in this Province for so conducting the work of road-making, hold out a prospect of effecting this object to the greatest advantage, and with the best probable results, and I am persuaded from what I have witnessed on the road above referred to, where the traffic is so immense, that the plan would succeed well here.

I have often seen in this Province an attempt to repair roads, by casting loose brush on the road, and covering loosely with earth, a practise to be altogether condemned as useless. I presume I need hardly state that *Bavins* consist of sound twigs and brushwood, the thickness of a finger, bound up close and compact with whys, and a strong stake driven through the middle to keep them firm. I humbly conceive that *Bavins* are much superior to trunks of trees, because they will interlace and support each other, which the trees cannot do. Arguing from analogy, Mr. McAdam broke large stones into small pieces, in order that he might obtain a material that would unite, or more properly speaking, bind. I am not prepared to state what would be the expense of preparing the *Bavins*, but there must be many persons here who pursued the occupation of wood-cutting in England, and could give an accurate estimate of the cost.

I will close my remarks by stating that the Dover Road, to which I have made such particular reference, is considered one of the best around London. Its foundation has not been disturbed since its formation, at the division I have described, nor has it perceptibly given way.