

The line from hence continues down Bush Creek about nine miles to Monocacy river, at an easy descent, not exceeding at any part a rate of about 24 feet per mile.

Fifth division, length 11 miles.

Passing over undulating ground, to the Point of Rocks, at a graduation not to exceed 30 to 35 feet to the mile.

The report of the superintendant of construction will afford the requisite information of the expense and of the progress made in the graduation, masonry, and bridges, as well as of the time when that portion of the work will be completed to the Point of Rocks.

For information of the cost and progress which has been made in laying down the rails, I refer to the report of assistant James P. Stabler, herewith transmitted, and deem it only necessary in relation to this department of the work to remark, that although the last autumn has been so unfavorable for carrying on the work, yet it is confidently believed that every thing will be done during the year 1831, which it was contemplated in the last annual report would be accomplished that year.

The construction of cars and burden waggons has also been carried on to the extent which the short length of rail ways completed, required, but no further, for it being foreseen that improvements would, and would very soon, be made in the construction and arrangement of their parts, it was thought that a prudent economy dictated the erection of the least number that the necessities of the present time required.

By reference to the late annual report, it will be seen that improvements were then anticipated, and they have been attained to a considerable extent.

It is hoped that in the next annual report we shall be able to exhibit the relative friction of the two kinds of cars, which we have been endeavouring to perfect. There is a plain car, with outside bearings, which is preferable to the English car, the bearings of which are inside of the wheels. As the outside bearing is at the point of the axle exterior of the wheel, it can therefore be oiled with the greater facility and cheapness: the axle at the bearing may also be smaller, and it can be conveniently steeled—at the same time, the box can be made more perfect. The experiments made have been very favourable to this mode of arrangement.

The Winan's Carr has also received essential improvements within the last few months; not, however, in its principles, but in the forms and consistency of its wearing parts.