

REPORT UPON THE CAPE FEAR AND DEEP RIVERS.

Having been engaged by Major Walter Gwynn, on your behalf, to make a survey of the Cape Fear and Deep Rivers, with a view to the opening of the navigation as high up as Hancock's Mill, in Moore County, and having completed the reconnaissance, together with such instrumental examinations of the most difficult portions of them, as the time allowed me would permit I have the honor herewith to report the results, including an estimate of the probable cost of a Slack Water navigation to be formed by a succession of Locks and Dams, with occasional short Canals.

Wherever in surmounting similar difficulties, they do appear to constitute a barrier to the navigation of the rich and fertile valley of that river. But they are by no means insurmountable—and when it is considered, as will be seen by the estimate, at what an inconsiderable cost the upper portion of the river can be rendered navigable, it will be understood that we can afford to expend an amount sufficient to overcome the difficulties as these falls, and yet leave the average cost of improving Deep River quite low.

The sides of the locks were merely upright posts braced at each alternate post with a single lining of one inch plank, and with no other support whatever. As might have been expected, they forced open soon after being subjected to the head necessary to pass a boat through them. They were miserable attempts at lock building, and it would have been far better had the money have been thrown into the river, as the effect of their failure, although some twenty years have past, is still found in the minds of many enterprising and intelligent gentlemen, who look upon any further attempt at improving this noble river, as a topian, merely because they failed at that time, without knowing or reflecting upon the cause: which was an utter want of skill in carrying out the improvement.

The plan of Dams upon which the estimate is based, is termed a crib dam. It is formed by longitudinal timbers, well secured to the rock, connected by cross ties, with the down stream end of the ties kept at such an elevation above the upstream end as will give the proper upstream slope, 1 1/2 feet horizontal to 1 foot vertical. These timbers will be of yellow pine properly hewed, and well free-nailed together, and the intermediate spaces or cribs, well packed in with stone. Upon timbers running length ways of the dam along the face of the upstream slope, will be laid the sheathing of 3 inch yellow pine plank, running up and down the slope, and well secured to these timbers by iron nails.

Without desiring to weary you gentlemen, I must carry you along with me, either by water navigation, or if that is impracticable, by a portage Rail Road, over the country dividing the Deep and Yadkin Rivers, where we reach an immense and populous valley, rich in every variety of agricultural wealth—which would be collected and transported upon the Yadkin to the Rail Road, and if sectional boats are used, such as are in daily use upon the Canals in Pennsylvania, they would, with their freight, be transported over this short portage Rail Road, and launched upon Deep River for the seaport of the State.

It appears to me there can be no doubt as to the profits of this improvement. That it would render the stock of the lower Cape Fear valuable, must be admitted. In conclusion, I would ask what Atlantic Seaport would have a more extended communication with the interior than Wilmington? Supporting the Yadkin Valley penetrated and improved, as I am informed it can be for some 150 miles above the "narrows," thus forming 400 miles of interior transportation, which for economy and low freights, would not be surpassed by any other improvement of the same length in the country.

Prominent among the events of the year...