

and for moderate spans, "Town's Lattice." The culverts are calculated for stone, except in a few instances, where the hauling would be great and the embankment but light; in these cases wooden drains are contemplated, with a view of transporting stone upon road to replace them when necessary.

The Track.

The superstructure contemplated in the estimates is of the kind most generally used on rail roads in this country, consisting of "Longitudinal Sills, Cross Sills," and rails, all of timber, the rails surmounted with an iron plate.

The "Estimated Cost" of the road, completed ready for cars, is \$2,071,788.00.

"General Remarks."

The total distance of the route, as examined, is one hundred and ninety-five miles and five thousand two hundred and forty-eight feet.

There is no doubt that the route can be essentially shortened by future examinations, and perhaps be improved in many places; all of which will tend to reduce the estimated cost.

Like all estimates made in this stage of the work, the one here presented must be regarded as only an approximation towards accuracy, though I have endeavored not to fall into the too common error of making it too low.

It should not be forgotten that although the face of the country along the route is generally favorable for a railroad, the *direction* of this route is unfavorable, in as much as it crosses the principal drainings of the country.

Notwithstanding all this, it will be seen from the estimates, that the work is not only practicable but quite feasible.

All of which is respectfully submitted,

THOS. J. McKEAN,
Engineer, Dubuque and Keokuk Rail Road.

[179] RESOLUTION No. 6.

MAIL ROUTE.

JOINT RESOLUTION for the conveying of the mail.

Resolved by the General Assembly of the State of Iowa:

Instructions. That our senators in congress be instructed, and our representatives be requested, to procure the carriage of the mail on route No. 4554, from Dubuque to Iowa City in this state, three times a week, in two horse carriages.

Resolved,

Copies forwarded. That the secretary of state be required to forward one copy of the above resolution to each of our senators and representatives in congress, and one copy to Hon. Cave Johnson, post master general.

Approved Dec. 23, 1848.