obligation to purchase as in No. 1 contract, so that the guarantee can be regarded as of little more value than an annuity for thirty-five years. This objection can be overcome in different ways, and without any disadvantage to the New Zealand Government.

Necessarily we were hurried in the consideration of the details of the contracts, and we find several points suggested for modification as being unusual obligations upon companies, and applicable more to contractors. These we are now studying, and Mr. Mackrell has promised his assistance, so that we hope to have the whole business in the best state of preparation possible for our Mr. A. Brogden to bring with him.

We have the honor to renew our assurance that, in carrying out these undertakings, we shall endeavour to do so to the entire satisfaction of the Government.

We learn that Dr. Featherston has arrived in England, but none of our firm have yet seen him. We shall hope to hear of your safe arrival in New Zealand.

We have, &c.,
JOHN BROGDEN AND SONS.

The Hon. Julius Vogel, the Treasury,
Wellington, New Zealand.

No. 3.

The Hon. J. VOGEL to the Hon. W. GISBORNE.

SIR,— General Government Offices, Wellington, 19th October, 1871.

I have the honor to forward to you herewith copy of specification and estimate for the "Eel River and Humboldt Bay Railroad" in the United States. Those documents are likely to be studied with interest. They show the estimated cost, and the nature and mode of construction of a light railway, intended, as I was informed, to open up a tract of country supposed to possess agricultural and mineral capabilities.

The average cost per mile of the railway, inclusive of rolling-stock, a deep water wharf, and warehouses, is moderate when the high price of labour and materials in the Western States is taken into account.

The gentleman who was kind enough to procure the documents for me, informed me that the projected railway is a fair sample of the kind constructed by private individuals when they desire to improve large tracts of country of which they have become possessed, which is indeed the object in the present case.

It is noticeable that an undertaking which in a British Colony would be considered very large, and which would probably require Parliamentary and other preliminary action, should in the United States be regarded as merely an ordinary improvement of property.

I have also the honor to forward to you an estimate for a cloth (or tweed) dressing establishment, supplied by Messrs. W. Kempe and Co., of Leeds, and information respecting Sisal hemp, which has been procured from the firm of William Wall's Sons, New York.

I have, &c.,
JULIUS VOGEL.

The Hon. the Colonial Secretary.

Enclosure 1 in No. 3.

HUMBOLDT BAY and EEL RIVER RAILROAD SPECIFICATIONS.

Description.

The "Eel River and Humboldt Bay Railroad Company" propose to build a narrow-gauge railroad from "Gingley's Ferry" on Eel River, following the general contour of the Bluff, at about two feet above extreme high water-mark, to a point on Hawk's Slough, known as "Hawk's Landing;" thence crossing Table Bluff at its lowest summit, and running by the most practicable route to deep water, at a point near the mouth of Hookton Slough—a distance of eight and one-eighth miles.

Specifications.

The railroad shall be built to conform to the lines, grades, and cross-sections fixed by the Engineer of the Railroad Company, and according to his directions and to his satisfaction. The gauge of the railroad is to be three feet.

Earthwork.

The width of excavations at the sub-grade line shall be 10 feet, with side slopes of 1 to 1, and of embankment, 8 feet, with side slopes of $1\frac{1}{2}$ horizontal to 1 vertical. Good ballasting material—to be approved by the Engineer—shall be placed on the whole length of the road bed to the depth of 1 foot and to the width of 7 feet, at 1 foot above sub-grade.

Pile Bridging.

The pile bridge shall be built according to the general plan hereto annexed and marked "A," each part thereof being of the dimensions thereon marked, and will be 4,000 feet (more or less) in length. The bents are to be 14 feet apart, and two piles to each bent. The caps are to be 12 by 12 inches in size, and 8 feet long, fastened to the piles with $\frac{7}{8}$" × 24" drift bolts—two bolts to each cap. The stringers are to be 12 × 12 inches, notched for the cap, and bolted to the caps with $\frac{7}{8}$ × 22" drift bolts; all the stringers to have one bolt to each cap, excepting at the joints, where two bolts will be required. The tie planks are to be 3 inches by 8 inches, and 6 feet long, notched for the stringer, and to be placed two feet apart. The diagonal braces—to be used at slough crossings only—are to be of 3 × 10-inch plank, and are to be properly fastened to both piles. The piles to be straight and sound, of the best "pine" or "fir" lumber, and not less than 12 inches in diameter at the point, and of such length as the Engineer may deem necessary—to be driven and cut to his satisfaction. The piles will probably average 23 feet in length. The lumber to be of the best pine or fir, free from bad knots, sap, warp, wind, or wanes.