



BEET SUGAR FACTORY.—(See page 274)

under the effect of an electric action if the ether which it contains is repelled on all hands in an equal manner. If the repulsion be less at one side than at the other, the body will move, if it be free, in the direction determined by the resultant of the repulsive forces. If we wish to determine the movement produced in a body, B, by the fact of another body, A, being situated in its neighbourhood, we may, without restricting the solution of the problem, consider A as fixed and immovable, and B alone as free. It would then be necessary to take the following circumstances into consideration:

1. The action directly exerted between the ether of A and that of B.
2. The action, on the ether of B, of all the surrounding medium, with exception of the ether contained in A.
3. The action of the ether A on the ether which, if B were removed, would be found in the space actually occupied by B.
4. The action of the whole surrounding medium, with exception of the space occupied by A, on the ether which, in the case of B being removed, would be found in the space occupied by B.

We thus evidently take all the active causes into consideration. The first two cases have reference to the effect of the whole mass of surrounding ether on the ether of B, the last two express, on the other hand, the same effect on the ether which, if B were removed, would be found in the place actually occupied by it. Now, taking the algebraic sum of the two first, and subtracting the sum of the two last, we have, in conformity with Archimedes' principle, the expression of the movement generated in B. This is shown by numerous applications.

MINERAL RESOURCES OF BRITISH COLUMBIA.—In the year ending the 30th of June, 1874, the exports from British Columbia were of the value of \$2,061,743, the gold dust and bars exceeding a million. The gold exports in the three months ending the 30th of September, 1874, amounted to \$407,734; and in September alone, \$190,000; and these statements are exclusive of gold shipped in private hands. A nugget weighing over 46 oz., and worth upwards of \$700, was recently taken out of Dease Creek; it is stated that this is the largest nugget that has been found in British Columbia. The local Government have sent a party to explore and prospect the head waters of the Stickeen. The north east end of Vancouver's Island is thought to be rich in minerals, as well as in cedar, fir, and white pine, as Mr. J. Coon has ascended Nimpkish river, eight miles to a lake fifteen miles in length, crossed the lake, and ascended Camascena river, finding gold diggings that will pay 3 dollars a day to the hand. On the lake a coal seam was seen, and copper and iron were met with everywhere.

The *New Glasgow Chronicle* is pleased to be able to say that operations are to be immediately commenced on the railway from New Glasgow to the Straits of Canso. Messrs. Schreiber and Burpee, who have been in Halifax for some days arranging final details with the Local Government, went over to Prince Edward Island on Monday, to settle up their business in connection with the Island Railway. Next week they expect to transfer their "plant" to New Glasgow, when active operations will immediately commence. Engineers arrived here on Monday, and are now engaged in locating the line.