lantern for Cape Kidnappers. This year we ask for a vote of £2,520 for the purpose of meeting the balance of the cost of the Cape Palliser lighthouse, and for making a commencement with a new lighthouse at the East Cape, &c.

The vote for harbour-works last year was £1,230, the chief item being the reclamation at Sticking Point, in Lyttelton Harbour. The expenditure amounted to £866. This year we propose a vote of £650, principally for the purpose of carrying on the Sticking Point reclamation-works.

For harbour defences, the vote last year was £5,000, and £4,667 was actually spent within the year. For the current year we again ask for a vote of £5,000, in order to give effect to recommendations made by the Commandant of the Forces.

A vote under the heading of "Contingent Defence" was obtained last session for £23,000, and £10,554 was brought to charge against it during the year. The amount was expended in the purchase of warlike stores of various natures necessary for maintaining the equipment of batteries and submarine-mining stations, also electric searchlight apparatus, Maxim guns, ammunition, &c. This year we ask for a vote of £20,000 to cover the balance of the charges intended to have been debited to last year's vote, and further purchases of *materiel* of war.

APPENDIX.

LIGHT RAILWAYS.

In considering the question of light railways, the following notes may be useful to honourable members:—

The main objection to railways of this character is the—

Break of Gauge.

The Tasmanian light railway, as I have stated already, is constructed on a 2 ft. gauge, the normal gauge of the Tasmanian railways being the same as our own—viz., 3 ft. 6 in. There is, therefore, a break of gauge between the light line and the normal one with which it connects. A break of gauge is always a disadvantage, and should be avoided wherever this can be done at a moderate cost. The disadvantage in actual practice is not, however, so great as might at first thought be imagined. The General Manager of the Tasmanian Railways, who has had practical experience of this matter, writes as follows:—

> The principal opponents to the construction of these narrow-gauge lines are railway-men who have had little or no experience in working them, and who make a bogey of the break of gauge. No railway manager would, of choice, agree to a break of gauge, but under certain conditions it becomes a necessity—such a condition, for instance, as where the construction of a broad-gauge railway would be an impossibility on account of the cost; when, in fact, it becomes a question of a narrow-gauge railway or no railway. . . . I think the time is close at hand when we shall see country hitherto unoccupied in many parts of Australasia opened up by narrow-gauge railways, as, although every railway manager would do his utmost to avoid a break of gauge, the Australasian colonists cannot afford to throw away, as they have done in the past, millions of pounds upon unprofitable railways—that is, railways which do not pay interest on their enormous capital cost.

The principal disadvantage connected with a break of gauge is the cost of transhipping goods from one gauge to the other. The disadvantage in the case of passengers is trifling, as changes from one train to another have frequently to be made even when only one gauge exists. The cost of transhipment is not, however, a very heavy item of expenditure. In Tasmania it averages 3d. per ton on the goods transferred. In South Australia, where they also have an experience of working two gauges—viz., 5 ft. 3 in. and 3 ft. 6 in.—they have three transhipping stations—viz., Terowie, Hamley Bridge, and Wolseley—and the cost of transhipment at these stations averages 3¾d., 5d., and 3d. per ton respectively. In India the cost averages 1d., and in France 2d. per ton, but in both these countries labour is cheaper than in New Zealand.

Transhipments are also now largely avoided by the use of what are known as transportation-cars. In transferring freight from the broad to the narrow gauge on this system, the broad-gauge wagon is simply run on to two specially-constructed trucks, each bearing half its weight, and is thus conveyed bodily over the narrow-gauge line; while the transfer from the narrow to the broad gauge is