

or to some want of care in cleaning and trimming them, for it is well known that similar oil and similar lamps under the care and management of different keepers produce some times very different results, as to the quality of the light.

The following particulars relating to the oil supplied by Messrs. Fitzgerald & Co., were reported by the officer who tested it, viz. :

“ This sample proved non-explosive at 112° Fahrenheit, vapour test ; specific gravity “ 43° Baume ; has a very good illuminating power ; crusted the wick very little ; smoked “ the chimney but slightly ; remained fluid at 10° Fahrenheit ; has an economic value of “ three (3) per centum over the last economic oil tested.”

The total amount paid by the department for Petroleum oil, which is used at all the light-houses in the Dominion (except at the Light ship in the Traverse and in the Light-houses and Light-ship in British Columbia), during the fiscal year ended 30th June last, was \$11,814 01. Owing to the great increase in the number of light-houses in the Dominion, and the introduction of the large No. 1 circular burner lamps into many of the light-houses, the quantity of oil which will be required for the ensuing year will be about 70,000 gallons. As the oil is now furnished at such a very cheap rate, the cost of oil in proportion to the other expenses of the light-house service, is very small, and it is of great importance to have the most brilliant light which can be produced at many of our principal lights. While the department has been most desirous to conduct its business in the most economical manner consistent with efficiency, it has also been most desirous to improve and raise the quality of the lights on our coasts and lakcs, so as to render the approach to shores as safe as possible. This will account for the steady increase which has been taking place every year in the quantity of oil consumed, although the total cost of the oil has not been much increased owing to the great reduction in price, which has taken place since the department assumed the management of the light-house service.

DOMINION STEAMERS.

There are three sea going steamers belonging to the Government of Canada, under the management of this Department, in addition to the two steam gun boats under the management of the Minister of Militia and Defence, stationed in the Upper Lakes. There are also two River steamers under the management of this Department, one the steamer “ Richelieu,” in the service of the Trinity House, Montreal, and the other in the service of the Harbour Police at the Port of Quebec.

The steamer “ Napoleon III,” is the largest and most powerful steamer owned by the Government, and is used principally for supplying light houses in the Gulf of St. Lawrence, occasionally laying buoys and assisting or towing vessels in distress. During the winter of 1870 and 1871, she received a thorough overhauling and had new decks, new iron bulwarks, stanchions, &c., which has enabled her to carry a larger deck load than formerly. Being a screw steamer, it was found that she rolled considerably in heavy seas, and it was considered advisable to put on side fins on each side of her below her water line, fore and aft, which have improved her very much, and have tended to keep her more steady. The cost of her repairs and fins amounted to about \$8,000.