

revision of the engineer, who, by replenishing the lamp, can maintain a continuous light for any number of hours.

### Canadian Pacific Locomotives.

The C.P.R. Co. is adding about 50 compound consolidation locomotives to its equipment, 27 of which are being fully built at the Co.'s works, De Lorimer Avenue, Montreal, under the supervision of Mechanical Superintendent Atkinson. It is estimated these will haul 25 to 30% more load than the 10-wheelers.

An order has been placed with the Baldwin Locomotive Works, Philadelphia, Pa., for 10 complete & 10 partially constructed Vauclain system compound locomotives of the following general dimensions:

Gauge, 4' 8½".  
Type, Compound Ten-wheeled.  
Cylinders, { H.P. 13½" } x 24".  
                  { L.P. 23" }  
Valve, balanced piston.  
Boiler diameter, 56".  
Thickness of sheets, 11/16" & 3/4".  
Working pressure, 200 lbs.  
Fuel, soft coal.  
Firebox material, steel.  
Firebox, length, 36½".  
                  " width, 42½".  
                  " depth, front 62½, back 52½".  
Thickness of sheets, sides 3/8", back 3/8", crown 1/2",  
                  tubes 1/2".  
Tubes, number 223.  
                  " diameter, 2".  
                  " length, 12' 7 5/8".  
Heating surface, firebox, 119.51 sq. ft.  
                  " tubes, 1,494.99 "  
                  " total, 1,614.50 "  
Grate area, 28.51 sq. ft.  
Driving wheels, outside diameter, 62".  
                  " centre " 56".  
                  " journals, 8" x 8½".  
Truck wheels, 28" diameter.  
                  " journals, 5" x 8".  
Weight on drivers, about 96,000 lbs.  
                  " truck, " 32,000 "  
                  " total engine, " 128,000 "  
                  " & tender, 208,000 lbs.  
Wheelbase, driving, 13' 5".  
                  " total engine, 23' 11¼".  
                  " & tender, 48' 3½".  
Tender truck wheels, diameter, 33".  
                  " journals, 4¾" x 8".  
Tank capacity, 32,000 Imperial gallons.  
Weight, empty, about 35,000 lbs.  
Service, passenger & freight.

Mr. Atkinson writes us that the partially constructed locomotives will be completed at the C.P.R.'s Montreal shops. They are being supplied without cabs, boiler mountings, boiler covering, sand boxes, bells, stacks, headlights, smokebox fronts, smokebox nettings, tubes, pilots, ashpans, grates & tenders complete, & are virtually boilers, frames, cylinders, wheels & motion.

The C.P.R. Co. recently placed an order with the Richmond Locomotive Works which calls for Richmond compound engines weighing in working order 140,000 lbs., with cylinders 20¼ & 32 ins. by 26 ins. The boiler will be of the extended wagon-top type, (Belpaire firebox) 62 ins. in diameter at the smallest ring, made for a working pressure of 200 lbs. The firebox will be 9 ft. 1 7/8 ins. long, 3 ft. 6 7/8 ins. wide, 5 ft. 4 1/2 ins. deep at front & 5 ft. 1/2 in. at back.

### Car Lighting by Electricity.

The C.P.R. has equipped the sleeping car Winchester, which runs between Toronto & Montreal, with a system of electric light generated from the axle. The C.P.R. has been experimenting with various systems of lighting for some time, with a view of determining the one best adapted for use in the car service. The results procured from the apparatus used on the Winchester are said to be very promising. Although the current is generated from the car axle, there is no flickering or irregularity in the light. This regularity is brought about by the use of a system of storage, which maintains a regular current, no matter what the speed of the car may be, and stoppages are also provided for in this way. One great advantage in this electrical system of lighting lies in the fact that the lamps can be brought into immediate requisition. On the transcontinental line, for instance, where there are numbers of snowsheds & tunnels to be passed through, the process of lighting oil lamps is too slow to meet the desideratum of having instant illumination. With the electric system, on the other hand, an employee need only press a button when the train is about to plunge into the darkness of a tunnel, to set all the lamps aglow. The Winchester is the first car in Canada to be honored with the new electric system.

### A Westinghouse Victory.

On Jan. 4 the Circuit Court of the U.S., held in Utica, N.Y., gave an important decision in the case of The Westinghouse Air Brake Co. vs. The Buffalo, Rochester & Pittsburgh Ry. Co. The Court issued a decree for an injunction against the latter Co., requiring infringing air-brake apparatus furnished by the New York Air Brake Co. to be removed from the cars of that road. During

1892 public competitive trials of the New York Air Brake Co.'s apparatus & the Westinghouse Air Brake Co.'s were made on three different railways. Each of these trials, the Westinghouse Co. states, showed the inferiority of the New York air-brake, & the Westinghouse Co. notified prospective purchasers that the New York apparatus would prove inferior & that it infringed the Westinghouse patent rights, & that a suit against the company would be pressed to a conclusion. After the question of infringement had been fully decided in the Westinghouse Co.'s favor, this Co. notified those who had purchased the New York apparatus, & made a proposition to replace it with its own. In spite of this owners of the New York brakes persisted in their use, & the suit followed, terminating in favor of the Westinghouse Co.

### Equipment Notes.

The C.P.R. Co. works at Perth, Ont., are turning out 8 to 10 freight cars per day.

It is said the Pullman Co. has renewed its contract with the Union Pacific for 15 years.

Rhodes, Curry & Co., Ltd., Amherst, N.S., is building 50 box cars for the Intercolonial Ry.

The Dominion Atlantic Ry. has ordered a passenger engine from the Baldwin Locomotive Works.

The C.P.R. has given an order to the Canadian Locomotive & Engine Co., Kingston, to build 15 tanks.

The C.P.R. is improving a number of its stock cars, especially for the cattle trade. They are being made wider & longer.

Rhodes, Curry & Co., Ltd., Amherst, N.S., is building 200 coal cars for the Dominion Coal Co., & 20 flats for the Canada Eastern.

The Montreal Star of Mar. 28 says that a Montrealeur went to Kingston to negotiate for the purchase of the Canadian Locomotive & Engine Works for a syndicate.

The company working the Southern Italian Railway has discarded the Hardy brake & will substitute the Westinghouse brake. The change is to be made first on 140 locomotives, 158 passenger cars & 45 baggage cars.

The Spokane Falls & Northern Ry. has ordered from the Illinois Car & Equipment Co., 25 ore cars for April delivery, to have 780 cubic ft. capacity, & to be fitted with Westinghouse brakes.

F. B. POLSON

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