

In other words, althouglocomotive. dynamo at a speed of 60 miles an hour volving 3 times as fast as it does at a spend of 20 miles an hour, the amount of current and rated is the same. In connection with this there is an automatic cut-out so adjusted as to throw the dynamo into circuit with the 1 mps upon its reaching a potential equal to the of a small storage battery supply, & throw it out of circuit upon its dropping below. The effect of this is that when the lamps are burning,  $\lambda$  the train running at 20 miles an hour, the temps are fed directly from the dynamo, & a small surplus of current goes through the batteries.
When the speed falls below 20 miles at mour the cut-out works automatically, & as long as it continues at its low rate of speed, the I ghis are drawn direct from a small but powerful set of storage, batteries supplied for the purpose. Any battery capacity is supplied to take care of the lights during all ordinary & reasonable delays, during stops, slow-downs or casual-ties. Any capacity can be supplied, but ordinarily & dependent upon the number of lights used there is enough for from five to fifteen

hours lighting in the battery supply.

Everything connected with the system is entirely automatic. The porter is given no instructions, beyond being told to turn the lights on when he wants them & turn them off when they are no longer required. We give illustrations of the device as applied to the Winchester. The cuts are so clear that technicians should be able to understand them at once. Another feature of this system is that in running during the daytime when the batteries are full, the very act of turning off the lights cuts down the efficiency of the dynamo to a point where it generates only the normal current necessary to pass through the batteries, in order to keep them in the best of condition. Should it be desirable, as it very frequently is, to introduce electric fans into the sleeping car during the hot months, as soon as those fans were brought into play the current generated by the dynamo would be amply sufficient to keep a large number of them in operation, if required, while yet serving the batteries with all that they require.

The foregoing description is compiled from material supplied by the owners of the system, & we do not accept any responsibility for the claims therein made, or necessarily endorse them.

Of the illustrations accompanying this article the 1st shows the regulating device, the 2nd & 4th give different views of the axle device & the 3rd & 5th explain themselves.

## Canadian Pacific Work.

Two dining cars are being built at the Montreal shops which are modeled very much after the Co's car Frogmore, which is said to be one of, if not the most modern dining cars running on any line in America. The decks will be coved & the cars will be equipped with wide end vestibules, so that passengers may enter under cover from adjoining cars.

The Co. will probably build 2 rotary snow ploughs at once. They will be similar to those now in use on the Co's western lines, with all improvements which have been made in rotary snow ploughs up to date. It is also likely that 2 C.P.R. standard wing ploughs will be built & that the nose & wings of each will be operated by compressed air, which is a novel feature.

A paragraph which appeared in a U.S. railway paper recently to the effect that the Co. intended to at once go on with the construction of another 1,000 freight cars as soon as those now being built are completed, is incorrect.

The Co. will probably build at its Penh works some hopper drop bottom ore cars for smelter work on the Pacific Division. They will have a capacity of 60,000 lbs. dach.

Ten compound consolidation engines, with