

**TRADE NOTES.**

Messrs. Darling Bros., of Montreal, manufacturers of the celebrated Claussen Clutch pulley and cut-off coup'ng, report the following recent sales: Grand Trunk Railway, Montreal, one 30" x 7" clutch pulley; Edison General Electric Co., one 66" x 10" pulley; The Rathbun Co., Belleville, one 40" x 12" pulley; Peck, Benny & Co., Montreal, two 36" x 12" pulleys; Citizens' Light and Power Co., three 300 h. p. clutch couplings.

It is customary, says the *Stationary Engineer*, to proportion the safety valve of a boiler to the amount of grate surface, allowing an area of one-half square inch in the valve, to one square foot of grate surface, but this can never be considered wholly reliable, as it does not consider the rapidity with which steam may be produced.

There is more trouble, in certain classes of engines, with the crank pin than with all other parts. If it gets hot, look carefully to the lubrication, and if the oil feeds properly you will probably find that the brasses are cutting. When this is found to be the case, take off the brasses, and if the pin is not much cut, use emery paper on it until smooth, or file it if necessary. Also file the brasses. If it is quite loose new brasses should be put on, and if they can not be had, the best thing to do is to drill holes in the brasses and pour in rabbit metal. This often makes a better job than new brasses, but should be done carefully. The rabbit plugs may slip out if not hammered in. If you want to fix them in so tightly that they can not come out by any means, drill your holes with a drill ground off at one side, so as to make it crooked, or larger at the bottom than the top.

**SPARKS.**

A branch of the Thomson Electric Welding Co. of Boston, has been recently established in the works of the Dominion Wire Co., Lachine, Que.

The Quebec & Levis Electric Light Co. has again secured the contract for lighting the Ancient City, at the price of \$80 per light per annum.

The city street-car system of Quebec is to be improved and extended. Electricity will be partially adopted. The undertaking will probably not be commenced until next year.

Low speed dynamos are found more advantageous, in the long run than those operated at a higher speed. There is less wear and tear, consequently less repairs, and they require less attention.—*Stationary Engineer.*

The meaning of the term *earth* or *ground* in connection with an electric circuit, has been decided in the Lane-Fox trial in London, to embrace any return circuit whether connected to earth or carried by bare or insulated wires. Prof. Perry stated at this trial that *earth* was the technical term for a return conductor of any description and while strictly speaking this is probably correct, it is hardly the meaning ordinarily attached to the term in this country, and would cause confusion if not explained in every particular case.

**TWO HARVEST EXCURSIONS**

To the Chicago, Milwaukee & St. Paul R'y, on Tuesday, August 30th, and September 27th, 1892.

Where the grasses are kissed by the wand'ring breeze,  
And the fields are rich with golden grain;  
Where the schooner ploughs through the prairie seas,  
To its destined port on the western plain;  
Where homes may never be sought in vain,  
And hope is the thriifst plant that grows;  
Where man may ever his rights maintain  
And land is as free as the wind that blows.

For further particulars apply to the nearest Ticket Agent, or address A. J. Taylor, Canadian Passenger Agent, 4 Palmer House Block, Toronto, Ont.

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