

The people have discriminated very nicely between a scheme and the handling of that scheme—and we hope the lesson will not be lost. It is a lesson other municipalities beside Toronto need to learn.

### STREET LIGHTING.

Street lighting is a question that is not receiving in many municipalities the attention it deserves. The proper lighting of streets is a convenience and a protection.

A convenience, because in this day of rush and high tension man has turned night into day; a protection, because the evil-doer does not love the light.

In planning street lighting too much attention, time and money have been spent in attempting to lay out a regular and uniform system that does not discriminate against any street or section. The councillor has had too much to say in the location of the lights. Not enough freedom has been given the technically trained man, else we would not find the light on those streets where there is great night traffic no better than on the less-travelled thoroughfares.

In planning street lighting it is necessary to discriminate between streets. The nature, use and demands of each must be studied. There cannot be any more uniformity in street lighting than in sewer construction. Each section has its own peculiar problem.

When considering lighting, streets fall into three classes: The main streets, which should be lighted for heavy traffic; the secondary streets, which lead off, and are usually as well lighted, and the suburban roads, that have a light here and there to mark the street line.

These classes run into one another so uniformly that no distinct line can be drawn, yet a lighting system must be planned to cover the distinctive features of each class.

### WASTED ENERGY.

**Fred. W. Field, in the Monetary Times.**

Seven hundred and six thousand five hundred and fifty-six working days were lost to employees through trade disputes during 1908. In other words, because capital and labor, man and master, could not agree, two thousand two hundred and fifty-seven years were wasted. In two strikes alone the loss amounted to 516,450 working days.

Strike news in the daily paper is usually considered of passing interest. The next sensation in a quickly moving age ousts the labor problem from the spheres of news interest. It is when a year's record is placed before the manufacturer and the artisan that they cannot fail to be impressed with the serious consequences of these disputes. Last year, an army of 26,250 employees were involved. Of 66 disputes, more than one a week, 12 were in the building trades, 10 in the mining and quarrying industry, and 9 in the metal working and shipbuilding trades. Agriculture was blameless.

In 38 of the lockouts and strikes, the question of changes in wages was involved. In 22 cases the demand for an increase of wages was the cause of the dispute. In 14 cases, the cause was a reduction in wages. The question of hours in labor entered into only 9 disputes, while in 4 the principal cause was the employment of non-unionists. Of 69 disputes in existence during 1908, 14 were settled by negotiations between the parties con-

cerned. In 23 instances, work was resumed on the employers' terms without any negotiations. In 17 cases the employers succeeded in filling the places of the strikers. The most unfortunate fact is that only 2 trade disputes were settled by arbitration and 4 by conciliation.

Of 69 instances, 43 ended in favor of the employers, 13 in favor of the employees, and 10 disputes were compromised. The classification of the results of trade disputes according to their causes show that out of 22 which arose from a demand for higher wages, 13 ended in favor of the employers, 5 in favor of the employees, and 4 resulted in compromises. Out of 14 disputes which arose from a reduction in wages, the employers were successful in 8, while compromises were reached in 2 cases, and in 1 the result was not reported. The employers were successful in 6 disputes which arose on account of discharge of employees, and the only sympathetic strike reported during the year resulted in favor of the employers.

The two chief troubles seem to be the lack of friendly co-operation between capital and labor, and the dictation and domination of United States labor organizations to and over Canadian organizations.

There can be no more objection to organization and concentration of labor than to the same of capital. It is good to have both properly captained. The two factors belligerent are a menace to national progress, development and prosperity. The two working towards mutual benefits constitute an invaluable factor in our economic system. When will this desirable change occur?

### EDITORIAL NOTES.

The insert which appears this week will be of especial interest to engineers who have to do with the preparing of specifications and the design of bridges. With the table should be read the article, "A New Moment Table," appearing elsewhere.

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The output of the Nova Scotia Steel and Coal Company during 1909 shows a marked increase over 1908. The return in tons is:—

	1908.	1909.	Increase.
Coal .....	680,772	810,000	129,228
Steel ingots ...	52,000	66,720	14,720
Pig iron .....	54,000	58,000	4,000
Coke .....	79,000	87,000	8,000

The Dominion Coal Company's output during 1908 was 3,556,309, and during 1909 2,739,007.

### PATENTS.

The following is a list of Canadian patents recently issued through the agency of Messrs. Ridout & Maybee, Manning Chambers, Queen Street West, Toronto, from whom further particulars may be obtained:—

Dr. Anton Messerschmitt, process for producing hydrogen; J. H. Hall, means of securing spare rims; Wm. H. Heard, spraying apparatus; E. E. M. Payne, purification of water; Friedrich Luthke, motor wagon; Albert De Dion and Georges Bouton, motor sleigh; Alfred L. Tourgis, induction coils; W. H. Johnson, reinforcing material for brickwork; J. H. Messenger, pneumatic tires; Ralph Noble, Jr., sleigh knees