

## The London Machine Tool Co., LONDON, ONT.

MANUFACTURERS OF GENERAL MACHINERY....

Having recently sold our patterns and plant to the A. R. Williams Co., of Toronto, retaining only such machines as are useful in our business, we beg to say that we are rapidly putting in New Machinery, from new and improved designs, and are now in a position to receive orders for all Standard Tools for Metal Working in all branches. It will be our aim, by personal supervision of the product of works, with expert men of large experience at the head of each department, to turn out nothing but first-class work at moderate prices. And as we intend to deal directly with the manufacturers, they will be enabled to get their machinery at first cost.

As we shall not be able to personally visit each manufacturer, it is for this purpose that we publish this advertisement. This is our agent who is going about to solicit a share of your patronage. We are thankful for the patronage extended to us in the past, and hope that we may secure an extension of the favors for the future.

All correspondence relating to the following Tools will be promptly answered, viz:

**LATHES** Engine, Gap, Break, Turrot, Fox, Spinning, Etc.  
**PLANERS** Standard, Crank, Plato, Etc.  
**DRILLS** Standard, Sensitive, Multiple, Radial, Etc.  
**MILLING MACHINES** Lincoln, Plain, Universal, Etc.

**SHAPING MACHINES** Whitworth, G. & E., Rack-Driven, Etc.  
**HAMMERS** Steam, Sandage Drop, Stiles Drop.  
**BULL-DOZERS** for all purposes.  
**PUNCHES AND SHEARS** for Plato, Angles, Channels, Gauges, Etc.

And we would call special attention to our **Wiring, Riveting, Etc.** We shall also esteem it a pleasure to give quotations on Special and General Machinery in our line.

**PRESSES** for Cutting, Stamping, Drawing  
it a pleasure to give quotations on Special and **LONDON MACHINE TOOL CO.**

### JOHN J. KELLER & CO.

104 and 106 MURRAY ST.  
NEW YORK

220 Church St., Philadelphia.

135 Pearl Street, Boston.

**Aniline Colors,  
Dyewood Extracts,  
Sumac and  
Nutgall Extracts.**

**FAST COLORS** for Wool Dyeing.  
One Dip Cotton Colors, Novelties  
and Specialties for Calico  
Printing.

MANUFACTURED BY

**JOHN R. GEIGY & CO.**  
BASLE, SWITZERLAND

**LIGHT YOUR  
FACTORY WITH**

## LUXFER PRISMS

The latest device for



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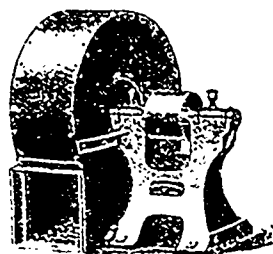
dark rooms and  
offices

**By Daylight**

For catalogue  
and estimates  
write to

**Luxfer Prism  
Co'y, Limited.**

58 Yonge Street, - **TORONTO.**



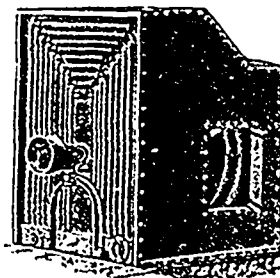
**Ventilating Steel-Plate  
Fans, Blowers and  
Exhausters.**

**WE** have on hand Fans of the Best American Makes, ranging from 15 inch to 72 inch. Also Second-hand Coil Heaters, with Fans to suit, from 1,000 feet to 5,000 feet of inch pipe capacity.

THE ABOVE ARE FOR SALE CHEAP.

Write for Prices and Send for Catalogue.

**McEachren Heating and  
Ventilating Co., GALT, ONT.**



fully appreciated by those who have adopted the electric system.

Power generated at any convenient point is distributed throughout the works by means of a few small wires, which, when once installed, require no further attention. It is entirely practicable to operate the generators with water or other power many miles distant, transmitting the current at high voltage and transforming it down to lower voltage at the works.

One of the important advantages of electricity for machine driving is the facility with which any section of the mechanical plant can be operated independently of any other section. This opportunity for subdivision is highly valuable when, in running overtime, or for other causes, one department is enabled to work without waste of energy while the remainder of the plant is at rest.

The saving of power through direct driving by electricity is a matter of the first importance. Tests have brought to light instances where five-sixths of the power developed in the ordinary engine room was dissipated in the shafting and belting, and this, with every machine running at full load, a condition seldom, if ever, reached in practice, and the maximum of efficiency of the plant was only thirty per cent. This is abnormal, however, and is the exception rather than the rule. Henthorn gives as a result of fifty-five tests in New England twenty-six per cent. loss in belting and shafting, while Flather contends that his experience shows such losses to reach an average of about forty per cent. of total power developed. The mean of the tests taken on one hundred and eight shops, by Fessenden, gives the average loss through friction as sixty-nine per cent., while Gibbs, in a series of tests, found the average to be fifty-two per cent.

When machinery is driven by direct connected electric motors, there is also an improvement in the sanitary conditions of a manufactory. The removal of belting and shafting eliminates a constant source of danger to life and limb. Instead of the myriad moving belts, obstructing the light, and keeping in constant agitation the grease laden dust, there is overhead a free and unobstructed view, with plenty of light, and untainted atmosphere.

Plenty of light and fresh air are stimulants which at once react in favor of the employer by rendering each employee more efficient, either in the production of more work, or of a better class of work. Indeed, this point is the second of importance in determining any question as to the advisability of equipping with electricity. Actual returns from plants that are now operated by electricity show that the output has been increased from ten to thirty per cent., results that are bound to be considered by all managers.

In eliminating the major portion of the shafting and belting, as is the case when electric power is used, a large expense is saved. With no shafting to lubricate, no belts to renew or repair, and no annoyance from loose pulleys, there is little difficulty in keeping machinery running, and the men productively employed.

With the installation of electric power, it becomes possible to concentrate the generating units at any convenient point, and it frequently happens that by removing the plant some distance from the main buildings, the owner is enabled to secure a considerable reduction in his insurance rate.

A further advantage lies in the possibility of designing the plant so as to have the generating units of such a size as to operate