# ENGINEER SIFTON SAYS CITY SHOULD ERECT OWN PLANT COST NOT MORE THAN \$235,000

Can Duplicate London Electric's Plant for \$275,000 He Says, But Company Ask \$506,000 ---Power at \$29.86 on 5,000 h. p. Basis Services of Consulting Engineer Are To Be Secured.

The long-expected report of City | To this all agreed, and the motion Electrical Engineer E. I. Sifton was passed. presented to the special power committee yesterday afternoon, and in it he advises the city to build and equip a power plant of its own, rather than purchase the plant of the London Electric Company. He values the present plant, for which the company asks \$500,000, at about \$275,350, and states that it will not be necessary to have a steam plant in reserve. The estimated cost of distributing

power by a city plant varies from \$6 04 for 5,000 horsepower, to \$10 50 for 1,000 horsepower. On an average the cost of distribution is practically \$5 per horsepower less than the offer made by the London Electric Company.

Should Have Its Own Plant. Mr. Sifton was very positive in his advice to the committee to construct, much biased in favor of giving the liability against the London Electric equip and maintain their own power London Electric Company the best of Company, which the corporation would plant, adding that there was no fear competition from any source what-In the report he deals at some

the London Electric, criticising them, prospective losses through competition, I believe, under the conditions suband offering suggestions. A comparative table is given, showing the cost of power at the Falls, at the transformer stations and to the consumer, with a comparison of the same, with the offer made by the

London Electric Company. \$235,000 Is Sufficient.

As for the cost of a distribution station here Mr. Sifton considered that be sufficient to cover the ground for and estimates borne in mind the probsome time at least. Mr. Sifton also recommended that

as many of the wires as possible for should be laid underground, and gave estimates of the cost of such a system. He also has a new scheme for lighting the streets, using short poles, saving the city at least \$80,000 in

Engineer Explains.

what it meant to the members of the accrued interest from December 1, committee. There was little or no 1908, to the time of taking over, and nose of valuation (see page 19) by said discussion on the merits of the report. pay for the same at the option of the pose of valuation (see page 19) by said Ald, Beattie had a little argument with Mr. Sifton on the power factor. thirty-year debentures of the corporfigures will be submitted to a con- per annum, payable half-yearly, and sulting engineer to report on. Meter or Peak.

Ald. Beattie wanted to know whether or not the consumer would have to pay by meter or peak load The consumer will have to pay on

figures are based on that," Well, suppose that we contracted for 3,000 horsepower, and could only sell 2,000 horsepower, would that affect the price to consumers?" asked Ald.

"As I stated before, the consumer will pay at the peak load, and that bonds of the company outstanding, lent in other lamps), which allow apwill bring it up, I think, pretty close amounting to \$100,000, a total of \$506,- proximately 30,000 incandescent lamps to what we contract for," Mr. Sifton 200, with accrued interest since Dec. to be connected to their lines, all of Then there was some discussion

about the load factor.

price of power. He pointed out such a price and upon such terms as covers 361 arc lights located as per that the power factor was about per cent, according to Sir Henry Pelatt, and that would surely have some at the time the agreement is entered wired for and to be used for summer effect on the price.

had figured on the basis of 24-hour such arbitrators or a majority of them pany at my request showing the lay-power, and if the consumer used it for be final, provided that the basis of out of their power and incandescent ten hours he would pay for 24 hours. valuation by the said arbitrators shall distribution service was correct.

The Amount of Power. Mayor Stevely asked Mr. Sifton if it

would be wise to reduce the amount of power asked for. Mr. Sifton answered that he did not think it would be wise so to do, as the reduction would affect the capacity of Niagara power throughout the city, on boiler equipment and a switchboard sibility of obtaining the contract from the London street railway, it would be wise to leave the contract with the commission as it was, for the present, 2,500 h.p. at \$17 50 per h.p. per annum,

"I have not," said Mr. Sifton.

Waterworks Power.

"It would cost a million dollars for new pumps," said Mr. J. C. Judd, who was listening to the conference. No person understood what this

on the power factor. Ald. Beattie desomewhat," said Ald. Beattie. "In this age.

would have to purchase to obtain 1,000- give all explanations necessary. horsepower."

\$24 79, not \$23 44, as in the tabulated evening, when everything is running, that assumption correct? statement. It practically meant that and see for yourselves the large First—The incandescent lighting serthe citizens would have to pay for 5 amount of fine machinery we have vice is 133 cycle, 1,040 V. primaries and If the power factor is 80, the cost per

horsepower will be \$26 43, which, if the cost of distribution were added, would bring the cost to the consumer up from \$29 81 to \$32 85.

Get a Consulting Engineer. Ald. Saunders then suggested that a consulting engineer be employed to go over the figures, to correct them, if necessary, and report to the commit-

Ald. Beattie agreed, on condition that last meeting, Jan. 27. the consulting engineer be not connected with any interested parties, the hydro-electric commission in particular.

You asked first: "That Engineer Sifing service direct on Niagara power would require all new pole transformers and it will not be adered offers of the London Electric ers and new house metering service as visable to contract for this apparatus call for.

No. 1-Purchase of stock and debenture debt for approximately

\$506.200

penture debt, \$506,200.

proximately \$500,000.

position, No. 4.

Could Sell to London Electric. In answer to the question of Ald.

Electric Company. "Will you give us a price on power? sked Mr. Judd.

"We have given figures now," said Ald. Stewart. Those present were: Ald. Stewart, chairman; Ald. Fitzgerald, Ald. Par-

sons, Ald. Saunders, Ald. Beattie,

Mayor Stevely, Secretary Baker and ngineer Sifton. Mr. Sifton's report is as follows: Introductory.

Before giving you my report I desire to state that if I were to follow assets appears immaterial except on my own inclinations, I would be very the grounds of any possible existing the deal within reason. Much of the London Electric Com- at par, and as regards the cancellation

pany's letter submitted with their pro- of existing rights, if any, under, under positions, is, I think, intended to cre- franchise. length with the four propositions of ate a feeling of sympathy for their the cause of which competition I can mitted be no better price nor any more only attribute to the usual chances all advantageous to the city than a direct businesses must take through the de- acceptance of either Nos. 1 or 2, owvelopment of new inventions at any ing to the terms set forth, namely: To

I have not, however, in giving this concern, and considering the earning report allowed any considerations value of said business be not less than ther than facts and business prin- 6 per cent per annum. Therefore, we iples to influence my judgment. In submitting same, I invite your namely: first, buying out the London riticism in detail and have through- | Electric Company plant at about \$500,-

ability and even desirability of havng same submitted to other engineers approval or condemnation and am proposition: Whereas their manager on willing to take my chances thereon, PROPOSITIONS SUBMITTED BY pany, Limited, at the meeting of the

THE LONDON ELECTRIC. COMPANY.

Proposal No. 1,

That the corporation purchase the When the committee received the whole of the available capital stock of the Ontario power committee makes of the Company at \$100 per share with Electric Company I imited to allow corporation, either in cash or in commission's engineer; On the motion of Ald. Saunders the ation bearing interest at 41/2 per cent the corporation to assume the debenture debt of the company, amounting \$100,000, and accrued interest thereon.

Proposal No. 2.

The London Electric Company will plant I have assumed the correctness the basis of the peak load during the recommend the shareholders to sell to month," said Engineer Sifton. "All my the corporation as a going concern maximum, operating electrical equiptheir entire business, plant, power- ment at the time of their peak load, house, poles, lamps, wires, franchise, 1,775 h.p.; total operating steam engine and all apparatus now owned by the equipment to operate same, 2,191 h.p.; company in the city of London for the total boiler equipment, 2,000 h.p., this sum of \$406,200 in each or thirty-year equipment having a capacity to opercity debentures bearing interest at 4½ ate twelve thousand 16 C.P.; 60 Watt per cent, and the city to assume the incandescent lamps (or their equiva-, 1908, to the time of taking over.

Proposal No. 3. The corporation to purchase and take 208 and 104 volt secondary wires. Ald. Beattie desired to know whether fuel and business of the company as or not that would affect the a going concern and pay for the same sumers, also that their distribution price of power. He pointed out such a price and upon and pay for the same concerns, also that their distribution may be decided by a board of arbitra- record of lights given me by city entors, one to be chosen by both parties gineer, with seven additional arc lamps Mr. Sifton did not think it would. He point an arbitrator and the decision of mitted by the London Electric Com-The load factor would not affect the price laid down.

The Amount of Power.

The load factor would not affect the considered on the earning value of the said business being not less than stalled to be 25 per cent six per cent per annum and as a going in access of the maximum peak load,

Proposal No. 4.

The London Electric Company will, if satisfactory arrangements can be made, enter into a thirty-year contract with the city of London to distribute of 2,310 electric h.p. equipment, and 2,000 h.p. at the following rates, which can be further subdivided.

2,600 h.p. at \$17 00 per h.p. per annum. foundations, chimneys, arc, incandes-"You would have to change the 2,700 h.p. at \$16 50 per h.p. per annum. cent and power dynamos, switchboards, waterworks system to install this 2,800 h.p. at \$16 00 per h.p. per annum. power, I believe," said Ald. Beattie. 2,900 h.p. at \$15 50 per h.p. per annum. and firing, machinery, together with Have you figured what this would 3,000 h.p. at \$14 75 per h.p. per annum. arc light distribution service of 368 3,200 h.p. at \$14 50 per h.p. per annum. lamps, incandescent light distribution 3,300 h.p. at \$14 25 per h.p. per annum. service covering district as shown on 3,400 h.p. at \$14 00 per h.p. per annum. map, power distribution service cover-3,500 h.p. at \$13 75 per h.p. per annum. ing district as shown on map, to total

4,000 h.p. at \$12 50 per h.p. per annum. \$442,000. Such a plant if operating an 5,000 h.p. at \$10 50 per h.p. per annum. The above rates do not include office require at least 5 per cent per annum meant, and there was no attention paid expenses for keeping or collecting consumers' accounts or meter readings, sidering the fact that renewals and Then there was another discussion but distribution of current only.

The Niagara current to be delivered ating expenses. This leaves a net clared that it would require 1,055-horsepower to get 1,000-horsepower shall be 2,300 volts A.C., and this will here. power and lighting at reduced volt- of \$275.350, having a capacity equal to

calculation I am figuring the power fac- | We trust your committee and the Company, Limited, at approximately ter at 85 per cent, merely for the sake city council will consider our proposals \$500,000, I can in no other way account of argument, although I am informed carefully, and if any explanations or for the difference of \$225,000 except by that it might be as low as 75, thereby further particulars are required, we crediting same to good-will. increasing the amount of power we shall be pleased to wait on you and

We also invite your whole committee and the council to name an early date on the assumption that the corpora- amounts of distribution if distributed and he figured that the cost would be to visit our power-house during the tion has a use for such a plant. Is by the per cent more power than they were there. It will be a pleasure to show 104 and 208 V. secondaries. This sys- the London Electric Company, Limited you around and explain our system to tem is not suitable for direct adaption to distribute Niagara power on the

you. Yours truly, LONDON ELECTRIC COMPANY,

MR. SIFTON'S REPORT.

London, Ont., Feb. 27, 1909.

Gentlemen -I beg to submit herewith report No. 2, as requested at your cost of power to the consumer. Any chance of reducing the cost of distriattempt to use the existing distribut- bution service except through the

distributing plant similar to offer No. as it exists at present there is a very assumed all prices as though the power trict covered is approximately all of 4, for comparison therewith and make noticeable lack of capacity for most were used 24 hours a day, 365 days that district where store or factory such further suggestions and give such districts.

further information as will enable the committee to deal with the propostion submitted. Second, that the engineer submitted. Second, that the engineer submitted steep to the street of this submitted. Second, that the engineer submitted steep to the street of the stree be instructed to furnish this committee to be installed with their consequent amount, namely 3,750 h.p. and owing ment. The total cost of this underwith an estimate of the cost of 1,000, losses of efficiency, together with the to London having a waterworks load, ground service including 6,400 feet of 2,000, 3,000, 4,000 and 5,000 h.p. laid distribution losses which are necessar-street lighting load and a very small main line, high tension distribution down at London, assuming the price ily excessive under this type of dis-percentage of 24 hour power outside mains shown in red; 16,206 feet of disdown at London, assuming the price by excessive under this type of dis-of \$23 50 per h.p. for 5,000 h.p. to be tribution unless immense quantities of correct, and taking into consideration the interest and sinking fund on the long tribution unless immense quantities of the street railway. I have not the tribution low tension service lines slightest hesitation in stating that a shown in blue; nine central district transformer manholes shown as red ,000 for transmission lines, etc., and plied has also (to use same) a similar means of reducing the cost of distri- squares; seven distribution manholes

\$31,000 for annual charges for repairs, etc., and also to give an estimate of lamps now in use in London have been one-half, and if the waterworks sys- approximately 160 distribution and the cost of transmitting 1,000, 2,000, 3,000, 4,000 and 5,000 h.p. by muniin the last few years. Fourth-As a consideration, however, cent resale will not be at all improbcipally-owned distributing plant coverit may be argued that a steam reserve able. ing the same area as the London Electric Company covered for power, inin combination with a peak load re-

candescent and street lighting."

pany, Limited, copies of which

capital and as a going concern.

No. 4-Thirty-year contract to dis-

result so far as the Corporation of

London is concerned. In that the city

receives lease of land, buildings,

boilers, engines, dynamos, switchboard,

poles, wires, transformers, meters and

good-will of consumers at a price ap-

Nos. 1 and 2 are almost identical-

have two propositions before us,

Considering, therefore, the purchase

behalf of the London Electric Com-

power committee on the 25th of Jan-

uary, refused to submit an inventory

of any kind of their equipment and objects to an inventory being taken by

myself, and whereas the official report

Electric Company, Limited, to allow

Therfore, I am obliged to estimate

the value of their plant and equipment

session, gained through my inspection

of their service to consumers and the

required plant to supply such con-

now obtained by them.

sumers if installed to give the results

In estimating the value of such

such equipment being 133 cycle single

phase; 1,040 volt primary wires with

allowing an engine equipment 10 per

cent in advance of this for efficiency

My valuations for such a plant cov-

ring departments as follows: engines.

boilers, piping, condensers, pumps,

buildings, coal storage, coal handling

average term of say ten years would

to be allowed for depreciation con-

repairs be made each year out of oper-

that offered by the London Electric

Some Facts.

The foregoing applies as a valuation

capacity suitable for same.

upon such knowledge as is in my pos-

positions 1, 2 and 3, have the same secured.

Considering first, therefore, the several offers of the London Electric Comlocated as to be available as a district the entire cost of distribution . hereto attached as printed in the daily were constructed with electrical equippaper, and which in brief form mean ment suitable to develop a similar current to that received from Niagara supply. Otherwise as a steam reserve plant we find a 2,000 h.p. equipment No. 2-Purchase of assets and deof very small service when a 4,000 or

conditions of earning 6 per cent on with the power requirements. City Doesn't Require It. My conclusion, therefore, must be tribute power, light, etc., on poles at that the corporation of London does cost per h.p. per annum from \$17 50 not require such a steam and electri-Beattie, Ald. Stewart reported that the to \$10 50 for 2,500 to 5,000 h.p. respectical plant in any capacity whatever, tively, not including office expenses or This leaves the good-will and customkeeping of or collecting consumers' ers of the London Electric Company accounts or meter readings. Pro- as the only desirable asset to

> Cost of Distributing Before submitting report on propoition No. 4 from the London Electric company, I will give you my results n cost of distributing service lines, and substation for arc, incandescent

lighting and power: Incandescent residence, store the question of purchase of capital and public building lighting, stock in total or the purchase of entire service wires, meters, transformers. distribution lines. poles, insulators and installation, covering 2,300 services, and the same district as is now assume if they bought out the stock covered by London Electric Company, but with primary line capacity 100 per cent in excess of present require-No. 3 proposition (arbitration), will,

ments .....\$ 98,876 lighting system for streets, covering installation of 400 street arc lamps, on bracket and cross street suspension, including cutouts, arresters, insuarbitrate value on a basis of a going lators, poles, wires, regulators, rectflers, meters, switchboards installation, etc., with an extra station equipment of 50 light eapacity ...... Power service alternating current, three phase 25 cycle cov-

ering all customers listed in my eport, No. 1, under classificaion of probable consumers, including poles, wires, insulators, transformers, meters, switchboards, installation, etc., and having a primary line capacity 100 per cent in advance of present need ...... 48,894

Making a total equipment of \$224,033 Allowance for engineering nd contingencies .....

municipality-owned lines and distribution service, because In the foregoing calculations we have shown on the attached map. The dis-41S HARRIMAN AFTER in the year.

efficiency transformation loss and the bution shown in the table, almost by shown as red circles, together with superseded in efficiency very materially tem can be available for assisting to service boxes. The above requiring reduce the peak load, then a 20 per 108,000 feet of conduit and the charge

This 20 per cent resale would mean steam heating plant and provided it Further Data Regarding Distribution Service.

5,000 load is to be distributed unless

of these have been in use an average the first year of operation of municipal of about ten years, I have estimated a distributing service; that it is my value of them as second-hand motors opinion that the corporation can prowhich totals \$17,435. I do not claim ceed to install the underground serthat if this apparatus was discarded vice shown in map attached, and will that the various customers would be not require to ask the citizens for any able to realize \$17,435 from their ma- additional capital until the elections to chines; in fact, one-half of this amount | be held at January 1, 1911. would be as much as we could expect them to realize considering the diffi-

culties they would be under in disposing of same, In an endeavor to accommodate such power consumers, I have figured the most efficient basis possible and there most efficient basis possible and there was a compatition from basis possible and there is the same of the same expense to the corporation to trans- will be no fear of competition from form Niagara power with the neces- any source. sary rotary converters or motor generators, and I find the following re- fications of underground service, also sults: The total cost of a sub-station, machinery and switchboards, necesusing poles and cross-arms already erected, would cost approximately \$45,440, and would require an addinal extra annual operating expense of \$4,900 per annum, which includes

Alternative Proposition.

figured the corporation to install a dis- in the foregoing estimates tributing system covering a district Respectfully s limited by Ridout, Wellington, Queen's obedient servant, avenue and Bathurst, in which district most of the direct current motors are located: leaving all direct current motors this limited district sub-station \$235,000 and equipment figures—a total cost of grows six feet high.

fronts approach the street line, and

of drawing in the required power street light and incandescent light cables, at a total cost approximately ducer plant, that a steam plant would a reduction on the average of \$6 per \$70,000. The overhead work eliminbe of value. I would favor this my-self, provided the steam plant were so other words, practically eliminating ground service figures a valuation of \$8,854, leaving a net additional capital expense for underground service of

\$61,146.

In all of the preceding calculations cured through results of other corpor-These figures submitted, I have se I have figured on the city distributing ations installing underground service Niagara power without the introduc- where it was absolutely necessary to tion or use of a single piece of rotating install same by opening up finished and machinery, and I feel that this system expensive pavements and owing to the No. 3—Arbitration for assets under the steam plant is augmented in unison is and will ultimately show itself to fact that through most of the district be the most economical, reliable and covered, the corporation has a system efficient system that can be adopted, of sidewalks which can be readily Owing, however, to the fact that lifted and replaced and which at the there are about 130 direct current elec- present time requires lifting, levelling tric motor users operated from the and re-setting or substitution by new London Electric Company's lines on cement sidewalks, I am of the opinion 250 and 500 volt direct current power that this underground service could be service, I have therefore, made an es- installed very much cheaper than the timate from the data collected in my foregoing estimate, and I will take this report No. 1, of the value of such occasion to state that I very strongly direct current electric motor equip- recommend the installation of as ments now installed by consumers on much underground service as the corboth the London Electrical Company's poration can possible see fit to install and the Helena Costume Company's and would further call attention to service wires, the total valuation to in- this feature. That, whereas, it will be stall this apparatus new is approxipractically impossible to connect up mately \$30,190, but as a large number and expend the entire \$235,000 during

Conclusion.

Therefore, gentlemen, my mendations as asked for must be:

overhead service lines, and call for Mines, Limited, which is one of the sary, the same being centrally located Two months' time I consider very Ganda Field. logether with the distribution lines short to prepare accurate plans and detail all work, obstructions, loca- ronto and other parts of the Domintions, etc. Third-Secure during said two

atus, lamps and methods which I per-As an alternative proposition I have sonally have approved and figured on submitted.

E. I. SIFTON. Electrical Engineer.

### TABLE OF COST.    Horsepower distributed											
A—Cost of power at Niagara \$10,400 00 \$30,800 00 \$30,000 00 \$40,000 00 \$47,000 00 \$47,000 00 \$26,843 20 26,844 20 26,844 20 26,844 20,00 00 26,844 20 26,844 20,00 00 26,844 20 26,844 20,00 00 26,844 20 26,844 20 26,844 20 26,844 20,00 26,844 20 26,844 20 26,844 20 26,844 20 26,844 20 26,844 20 26,844 20 26,844 20 26,844 20 26,844 20 26,844 20 26,844 20 26,844 20 26,844 20 26,844 20 26,844 20 2	7	THE	TABI	E OF	cos	ST.	,			antionius (ISS) tilmannius konsustautikkinas val	
D—Line loss and maintenance, annual. 11,965 42 11,965 42 11,965 42 11,965 42 11,965 42 31,378 00	A—Cost of power at Niagara B—Interest on \$671,080, at 4 per cent	\$ 10,400 26,843	00	\$ 30,800	00	\$ 30,000	00	\$ 40,000	00	\$ 47,000	00
G—Municipal operating, annually 10,150 00	cent	11.965									
Fund	G-Municipal operating, annually	10,150		. , , , , , , , , , , , , , , , , , , ,						,	
F—Cost per horsepower at city limits \$ 80 58 \$ 45 49 \$ 33 89 \$ 27 54 \$ 23 44 C, D, H, and G \$ \$112,726 62 \$123,126 62 \$132,326 62 \$142,326 62 \$149,326 62 \$ \$149,326 62 \$ \$149,326 62 \$ \$149,326 62 \$ \$149,326 62 \$ \$149,326 62 \$ \$149,326 62 \$ \$149,326 62 \$ \$149,326 62 \$ \$149,326 62 \$ \$149,326 62 \$ \$149,326 62 \$ \$149,326 62 \$ \$149,326 62 \$ \$149,326 62 \$ \$149,326 62 \$ \$149,326 62 \$ \$ \$149,326 62 \$ \$149,326 62 \$ \$149,326 62 \$ \$149,326 62 \$ \$ \$149,326 62 \$ \$ \$149,326 62 \$ \$ \$149,326 62 \$ \$ \$149,326 62 \$ \$ \$149,326 62 \$ \$ \$149,326 62 \$ \$ \$149,326 62 \$ \$ \$149,326 62 \$ \$ \$149,326 62 \$ \$ \$149,326 62 \$ \$ \$ \$149,326 62 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	fund	2,990	00	2,990	00	2,990	00	2,990	00	2,990	0.0
average consumer	F—Cost per horsepower at city limits C, D, H, and G	\$ 86 \$112,726									
L	average consumer	\$ 112	2 72	\$ 61	55	\$ \$	44 08	35	58	\$ 29	86
tion offer	(J-F)	32	2 14	16	07	, 1	69	S	04	6	42
and accounting			••••	• • • • • • • • • • • • • • • • • • • •	• • •	1	5 00	12	50	10	50
N-15 per cent increase on account of inefficiencies of distribution 5 00 4 11 3 50 O-Total cost London Electric distribution offer, L, M, N 21 37 17 63 14 82 P-Extra cost to allow London Electric to distribute per horsepower, O, K 10 68 9 59 8 40 Q-Additional annual cost of same \$32,040 00 \$38,360 00 \$42,000 00							1 27	\$ 1	62		63
<b>Q</b> —Additional annual cost of same	N-15 per cent increase on account of O-Total cost London Electric distrib	inefficie	ncies of fer, L. M	distribut I, N	ion	. 2	5 00 1 37	17	11 63	3 14	50 82
	Q-Additional annual cost of same					\$32,04	0 0 0	\$38,360	00	\$42,000	00

equipment in sub-station, distributing service and all equipment appertaining thereto, are figured for 5,000-horse-If the transformer station and Niagara line were reduced to 3,000-horsepower, and the distributions proportionately reduced for 1, 2, 3, and 4,000-horsepower equipment, there would be corrections in the figures of each column under 1, 2, 3, and 4,000-horsepower, respectively.

EXPLANATION OF PRECEDING \$35,818, with an additional annual TABLE.

Line A. is approximated owing to the Hydro-Electric Company expecting to distribute at 120,000 volts at which pressure the price of power is to be arbitrated. Line B. and C. figured at 4 per cent.

on account of Government allowing 4 per cent on municipalities' moneys. Line E. is total of lines A., B., C. and D. Line F. is line E. divided by h.p. at top of each column respectively. Line G. is an estimate of operation

expenses of municipal distribution plant, at 5,000 h.p. load, not allowing for repairs, or addional service line-Line H. shows interest, depreciation and sinking fund at 4 per cent on municipal distribution plant, at capital

cost of \$235,000. Line I. shows total annual cost o distributed power delivered to customers and is total of lines A., B., C., D. G. and H., or E. and G. and H.

Line J. explains itself. Line K. being the difference between cost at city limits and cost delivered. J.-F. shows the cost per h.p. to dis- safety against loss of life through their cases should be disposed of first. Lines L., M. and N. totalled in line

Electric Company. Line P. is the difference between city's cost of distribution and London Electric Company's cost to the city for distribution, or line O. minus line

Line Q. makes the total per annum cost to the city on the respective London Electric Company, Limited.

Deductions. First-It is not advisable to allow to Niagara power and would require basis submitted, as it would mean a the use of motors suitable for opera- tax on each citizen who operates say Limited, tion from Niagara service to drive the twelve lights or one h.p. of \$8 40 pe existing generators now driven by annum on the average. steam engines or else the installation Second—The price of distribution of rotary frequency changers. The plant and service wires being figured To the Chairman and Members, Special former method would entail about 20 for 5,000 h.p. distribution, and where-Power Committee, Corporation of per cent average load loss and the as the areas covered by arc, incandes. latter about 12 per cent, making a cent and power wires are approxi-consequent proportional increase of the mately fixed, I can see very little

operating expense including operators, transformation losses, interest and de preciation of \$4,150.

The amounts eliminated from the cost of alternating current distribution service will necessarily be small, as there is no doubt whatever, the alternating current power service will require to be installed ready for new consumers throughout the entire districts.

Considering therefore, the above whereas there could be no objection found if the corporation decided to proam obliged to admit that it will be trial. more economical for the corporation to make some allowance to such direct apparatus required to serve such

Underground Distribution Service. Owing to the desirability of eliminating from our main streets the disfiguring poles and wires thereon, to- trial there for murder in the first degether with the advantages secured in gree for more than a year, he believed direct results and indirectly through the set the date for these trials for fire and other dangers, I have pro-March 22 and 23 next, and said he

HAINS TRIAL PUT OFF

Slayer of Annis Must Wait Until turbed." Other Cases Are Settled.

Flushing, N. Y., March 6 .- Efforts made today by the district attorney of Queen's County to have an early date The Imperial General Staff Points Out set for the trial of Capt. Peter C. Hains, accused of the murder of Wilcapital costs and annual costs and liam E. Annis, were brought to nought Borden presented a return to Parliaby a decision of Supreme Court Jus- ment yesterday, containing the correvide suitable direct current service, I the naming of a date for the Hains

Captain Hains, heavily bundled up against the cold air, was brought from current motor users in the way of the jail to the court house here, the points out the necessity for the mainreduced power rate for a given term scene of the trial and acquittal of his rather than to invest in the power brother. T. Jenkins Hains for combrother, T. Jenkins Hains, for complicity in the murder of Annis, but was not taken into the courtroom.

O. shows the figuring of the actual cost vided an estimate of the cost of under- would postpone indefinitely the namof distribution as proposed by London grund service through the district as ing of a date for the Hains trial.

### Gives Reason Why Doctors Fail to Cure Sick Women

Because they fail to notice exactly what is wrong with many a sick woman, doctors are frequently criticised very severely. For instance, disease in the kidneys is one of the last ailments for which a doctor looks when treating women. This is a great mistake. Women are very prone to kidney trouble and in fact many physicians

attribute a woman's languor and ill-health to a derangement of the genital organs, when it's simply plain kidney disease, and nothing else. Many so supposed female complaints are either bladder or kidney diseases. Sick kidneys, of course, make associate organs sick also. The result is back pains, bearing down sensations, utter weariness and headache. But The mine was opened about five years

Dr. Hamilton's Pills go right to the spot. They put life into the kidneys

that makes a worn-out woman feel like new. Indirectly the blood and nervous centres are assisted by Dr. Hamilton's Pills, and the result is a proper performance of the function and a painless | threatened. At the other colleries work falfillment of nature's command.

Thus it is that a woman can gain much happiness and abundant good health by the regular use of Dr. Hamilton's Pills. effect is wonderful. Sold by all dealers. Price 25 cents per box. Five registering the distance covered in You can rely on Dr. Hamilton's Pills with implicit confidence. boxes for \$1.

# THE PERE MARQUETTE?

Rumored That It Will Be Added to Baltimore and Ohio System.

Detroit, March 6 .- The Pere Marquette Railroad is in the hands of J. P. Morgan, to do with as he sees fit. That this road will soon be disposed of to some other great system, undoubtedly Harriman's Baltimore and Ohio, we are fully convinced. deal simply awaits the outcome of the negotiations for a settlement of the financial difficulties of the Cincinnati, Hamilton and Dayton Railroad, said a Pere Marquette official, that his name be withheld, this morn-

It was announced this week that the plan proposed for the Cincinnati, Hamilton and Dayton settlement was rejected because of protests by large holders of 41/2 per cent collateral trust notes. Terms of that proposed settlement are now made public, and in them J. P. Morgan's control of the Pere Marquette is disclosed.

"It was proposed that the Baltinore and Ohio, which road is bargainng for the Cincinnati, Hamilton and Dayton, should guarantee the principal and interest on the four per cent notes of the Cincinnati, Hamilton and Dayton which mature in 1913," explains he Pere Marquette officials. "In return for this the Cincinnati, Hamilton and Dayton was to relinquish \$11,000, 000 of the common stock of the Pere Marquette, which the Cincinnatt, Hamilton and Dayton secured in June,

#### **NEW FIRM OF BROKERS IN TORONTO**

Opening of F. R. Bartlett & Co., Limited, Offices at Royal Bank Building.

A new brokerage firm has been add ed to the list of Toronto business con cerns under the style of F. R. Bartlett & Co., Limited, bankers and brokers, with offices occupying the entire fourth floor of the Royal Bank

They are launching into a regular banking and brokerage business, handling only A1 stocks and gilt-edged investment securities, making a cialty of the stock of the Bartlett best-known mines in the New Gow

Being well and favorable known in specifications of this work, showing in financial and mining circles in Toion, and having first-class connections in New York and London, England. months the latest and best informa- there seems to be a bright and rosy operators, transformation losses, in tion to satisfy yourselves as regards future ahead for the two young men the designs, types, etc., of the appar- Messrs. F. R. and J. W. Bartlett, who are members of the new firm.

Mr. F. R. Bartlett has been for eleven years connected with the Dominion Your Bank, being for the last three and a half years, manager of their north end branch in Winnipeg. Mr. J. W. Bartlett has a long experience as a min knows thoroughly On pasture lands in Alaska grass balt and Gow Ganda silver fields, and is the controlling factor in the Bartlett Mines, Limited. With the knowledge and experience of these two men the new company is wonderfully well equipped to serve the public, and their clients are sure of a service which cannot be surpassed.

#### THE COAL OPERATORS WOULD ABOLISH DUTY

Want Free Entrance Into Canada for Bituminous Coal.

Pittsburg, Pa., March 6.-In an atempt to persuade Congress to establish reciprocal coal trade with Canada. practically every coal operator in the Western Pennsylvania district has sigend his name to a petition addressed to the House of Representatives.

Such an agreement, they say, would mean an immense increase in the output of bituminous coal, as under the existing conditions the entire middle portion of Canada would draw direct-ly from the western coal fields of this state. The high duty on coal at present makes such trade almost prohibitive, and it is the wish of the operators that this duty be removed, that bituminous coal, for which Canada has great need, may be poured into Canada from the local mines.

The petition concludes: "The position of the operators signng the paper is that if the Canadian Government does not abolish its duty on coal the present tariff be not dis-

## READY FOR EMERGENCY

the Necessity.

Ottawa, March 6. - Sir Frederick tice Garretson postponing indefinitely spondence between the Imprial and Canadian Governments relating to the organization of an imperial general A memorandum from the war office

tenance of sea supremacy, the desirability of a broad plan of military organization for the Empire, making al-Justice Garretson stated that as tion of an armed force into two parts, there were two men in the Queen's first having local defence as its object County jail who had been awaiting and second designed for service of the Empire as a whole. There being no guarantee that con-

ingents will not be required, timely provision should be made for an emergency which is the paramount factor n the speedy conclusion of war. Assenting to the general principles of the plan. Sir Frederick does so cordially because "the great principle of complete local control by the responsible minister concerned and officers of the local section of the im-

CLOSED THE MINE.

perial general staff is fully safeguard.

Glace Bay, N. S., March 5.- The Dominion Coal Company yesterday closed down their mine at Dominion No. 6, and as a result about 500 men will have to seek employment elsewhere. The mine is closed down for an indefinite period, and only sufficient men to attend the pumps are now employed. Today the horses were taken out of the works and brought to Glace Bay. ago. The men out of work at No. 6 are members of the United Mine Workers of America, and a strike is is fairly brisk.

To cure its office boys of loafing a firm at Beloit, Wis., has equipped the trips and the speed made.