Conservation

A monthly bulletin published by the Commission of Conservation, Ottawa, Canada.

VOL. III APRIL, 1914 NO. 4

International Conference on City Planning

At Toronto, Monday, Tuesday, Wednesday, May 25, 26, 27, 1914

PROVISIONAL PROGRAMME

Monday, May Twenty-fifth

9 a.m. Registration at Conference Head-quarters, Convocation Hall, University of Toronto.

10.30 a.m. Field Marshal, H.R.H. the Duke of Connaught, the Governor General, has graciously consented to open the Conference and to give an address.

11.30 a.m. A tour of inspection of the City and Harbour will start from head-quarters. Lunch will be served during the tour.

FIRST CONFERENCE SESSION: at 8 p.m.

Address of Welcome.

Response by FREDERICK L. OLMSTED, Chairman Executive Committee.

The Relative Importance of City Planning as Compared with all other Functions of City Government: ANDREW WRIGHT CRAWFORD, of Philadelphia, Editor city planning section of the "Public Ledger."

The Progress of the Year in City Planning: A report prepared by the Secretary.

Tuesday, May Twenty-sixth

SECOND CONFERENCE SESSION: at 10 a.m.

Provision for Future Rapid Transit: Subway, Elevated or Open Cut and their Influence on the City Plan: J. V. DAVIES, Consulting Engineer, Brooklyn Rapid Transit Company.

Rapid Transit and the Auto Bus: JOHN A. MCCOLLUM, Assistant Engineer, Board of Estimate and Apportionment, New York City.

Luncheon: Topic: *Garden Cities and Garden Suburbs in America.*

THIRD CONFERENCE SESSION: at 2.30 p.m.

Protecting Residential Districts: LAWRENCE VEILLER, Secretary and Director, National Housing Association, New York City.

Toronto's Water Front Development: R. S. GOURLAY, Toronto Harbour Board.

FOURTH CONFERENCE SESSION: at 8 p.m.

A Canadian Town Planning Act: Consideration of Principles and Procedure.

Draft of act is now being prepared by a committee appointed by the Canadian Conservation Commission; it will be criticised and discussed by experts from Canada, the United States, England and Germany.

Wednesday, May Twenty-seventh

FIFTH CONFERENCE SESSION: at 10 a.m.

Recreation Facilities in the City Plan: HENRY V. HUBBARD, Professor of Landscape Architecture Harvard University.

Luncheon: Experience Meeting.

Three-minute talks from representatives of cities and city planning commissions.

SIXTH CONFERENCE SESSION: at 2.30 p.m.

An Open Session for the discussion of subjects to be submitted by members of the Conference.

SEVENTH CONFERENCE SESSION: at 4.30 p.m.

Conference Business.

The Conference will close with a dinner at which the members of the Conference will be the guests of the Commission of Conservation.

The leaders of discussions and the banquet speakers will be announced in the Final Programme to be distributed about May first.

GENERAL INFORMATION

All the sessions of the Conference will be held in the Convocation Hall of Toronto University. With the exception of the business session, they are open to the public.

Membership: Any person may become a member of the Conference by payment of the membership fee of $5.00. Membership includes (1) the privilege of attending all the sessions of the Conference and taking part in the oral discussion; (2) the privilege of participating in the luncheons and tour of inspection and in the closing banquet; (3) the right to receive the published *Proceedings* of the Conference; (4) the right to receive any other printed matter published during the Conference year.

Registration: All members and delegates are asked to register at the Conference Headquarters, Convocation Hall, University of Toronto.

What City Planning Is

A Definition by the Chief Engineer of the Board of Estimate and Apportionment of the City of New York

City planning is simply the exercise of such foresight as will permit the orderly and sightly development of a city and its environs along rational lines, with proper regard for health, amenity and convenience, and also for commercial and industrial advancement.

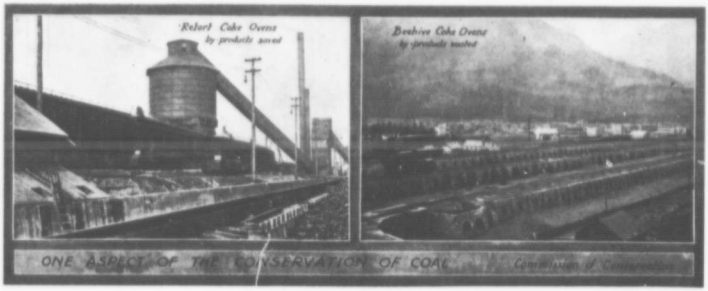
—Nelson P. Lewis.

Why City Planning Pays

Why the Chairman of the Chicago Plan Commission Believes in City Planning

It promotes trade by supplying direct and easy ways for the extension and development of commerce; fosters city growth by making it easier and cheaper to conduct all classes of business; increases and insures all property values by preventing the many evils of haphazard building, makes every citizen a more efficient and more effective worker by saving time and money in transit of goods and people;—and, above all, it assures to that city which adopts it, a future citizenship sound in body, mind and morals.

—Charles H. Wacker.



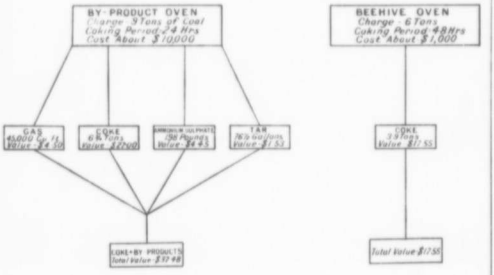
(Cut No. 39)

BRIQUETTING OF SLACK

Much coal is never utilized in Canada through piling the slack into hugh "dumps." Such material is very valuable, and by means of a briquetting plant, may be converted into fuel of commercial value. Tests made in the United States show that the cost per ton of briquettes loaded on cars, from a briquetting plant at the mine would vary from about $3.50 to $5.00.

The binder used is tar, which may be obtained as a by-product in the manufacture of coke. The briquettes with-stand weathering better than ordinary coal, and there is less waste in shipment.

COMPARISON OF YIELDS FROM BY-PRODUCT AND BEEHIVE COKE OVENS



(Cut No. 40)

Canada and the United States are far behind Germany and other foreign countries in realizing the economies resulting from the coking of coal in by-product ovens. In Germany, at the present time, little or no coke is made in retort (by-product) ovens. When the economies which may be effected by the use of such ovens have been so clearly demonstrated, not only by plants which have been constructed in Europe, but also by plants at Sydney and Sault Ste. Marie in Canada, and in the United States, it is difficult to understand why they are not more generally adopted in Western Canada. No doubt the greater cost of installing them, and the lack of markets for the resultant by-products have hindered progress in this direction in the past. The development of the West, however, is rapidly creating local markets for the products, and, in view of the higher yield, the greater initial cost should no longer be a deterrent.

ECONOMIES EFFECTED. — The following are some of the economies which may be effected by the use of by-product coke ovens as against the use of behive ovens:—

1. The quality of the coke is just as good for metallurgical purposes as coke made in beehive ovens.

2. The yield of coke from by-product ovens is from 10 to 15 per cent higher than the yield from beehive ovens.

3. While the cost of installation per oven is greater for the by-product than for the beehive oven, the capacity is from three to six times as great.

4. In by-product ovens, the following by-products are saved:

Gas.—Coke oven gas is an ideal fuel and may be used for burning under boilers, driving gas engines, for domestic purposes and illumination.

Ammonia.—The ammonia may be recovered as ammonium sulphate or ammoniacal liquor. In the former case it is used as a fertilizer, while, in the latter, it can be used for making many chemical products and also as the freezing agent for refrigeration purposes.

Tar.—The tar may be used in the manufacture of various kinds of roofing, for covering pipes, etc. It can be distilled, yielding pitch, creosote, light oils, carbolic acid, etc. Creosote is especially useful as a wood preservative. Pitch is used for roadmaking and as a binder for the manufacture of coal briquettes.

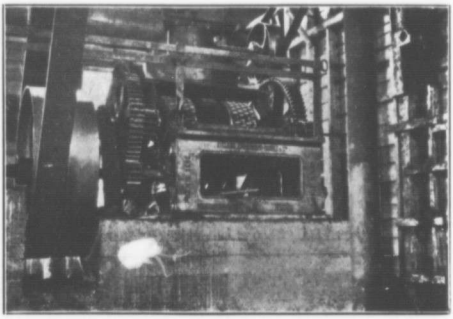
Fuller information on this important subject can be obtained by persons interested from a report entitled *Conservation of Coal in Canada*, by W. J. Dick, M.Sc., recently published by the Commission of Conservation.

(Cut No. 41)

Slack coal dump, Bankhead Mines, Ltd., near Banff, Alta.

(Cut No. 42)

Waste of slack coal at tidewater, Pacific Coast Coal Co., Boat Harbour, V. I., B.C.



(Cut No. 43)

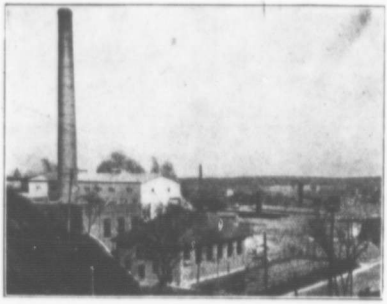
Briquetting rolls, MacKay Mine, N. Sydney, N.S.

REFUSE COLLECTION AND DISPOSAL

The problem of the collection and disposal of the various kinds of waste material, other than sewage, has not been satisfactorily solved in many Canadian towns and cities. In the illustrations below, we are confronted with a striking contrast in civic efficiency. Both are examples of back premises, but, whereas in the upper figure we see an untidy piece of waste ground, littered with various unsightly odds and ends, in the lower figure, we see attractive gardens, with hedges, flowers and trees.

The Commission of Conservation has still on hand a number of copies of a pamphlet on Refuse Collection and Disposal. These may be obtained for free distribution on application.

(Cut No. 47.)



(Cut No. 45)

Garbage incinerator at Westmount, Que.

(Cut No. 46)

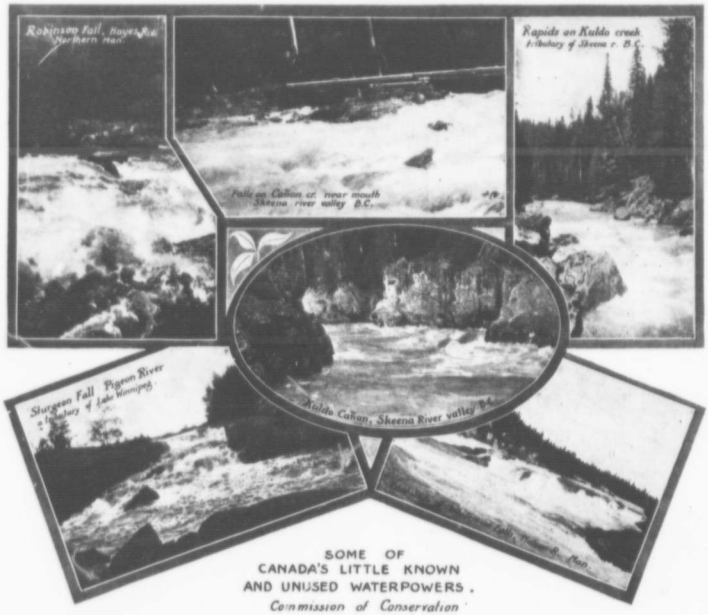
Crowded neighbourhood in a large Ontario city. Note small backyards and general air of untidiness and dilapidation. Several families live in each house.

(Cut No. 47)

Three-roomed "house." Rent $9.00 per month.

(Cut No. 48)

Privies serving a group of surrounding houses.



SOME OF
CANADA'S LITTLE KNOWN
AND UNUSED WATERPOWERS.
Commission of Conservation

(Cut No. 49)

Repeated Fires Kill Seed Trees

Great Damage done on Lands Already Burned

In the township of Cashel, Frontenac county, Ont., a forest fire occurred about 35 years ago, which destroyed most of the old trees, but, after this first fire, a vigorous reproduction of young pine took place, amounting on an average to 170 trees per acre. The prospective yield in dues to the Government from these trees may be placed at $34.00 per acre. Fifteen years later, however, a second fire ran over all but 3,500 acres of the area, and so injured the remaining seed trees that the subsequent reproduction was only 20 trees per acre. This second fire reduced the prospective dues to $4.00 an acre. A third fire which ran over about 1,500 acres killed the few seed trees that escaped the second fire, and reduced the prospective dues to zero. There are now in the township about 3,500 acres that have been burned once, 9,000 acres twice, and 1,500 acres three times, so that we may calculate the loss in prospective dues to the Government, since the first fire, as follows:

Prospective dues after first fire:		
14,000 acres burned once, $34 per acre..		$476,000
Prospective dues at present:		
3,500 acre burned once, $34 per acre.....	$119,000	
9,000 acres burned twice, $4 per acre.....	36,000	
1,500 acres burned three times,	0	155,000
Loss of revenue to the Government.....		$321,000

Garbage Incineration

Most Efficient Way to Dispose of City Refuse

Incineration is the most efficient, sanitary, and, if properly managed, economical way of disposing of garbage in cities and large towns. Mere dumping in a huge midden is not disposal in the true sense of the word. It is simply an attempt to segregate a nuisance. Burial of rubbish requires a large area of ground and a long haul. It may be suitable for small towns that cannot afford an incineration plant, but it is out of the question for larger centres. Dumping into water should never be permitted except by cities on the sea-coast, and only then provided the tides are favourable and the waste material will not be washed back on the shore. Reduction of garbage in "digesters" to remove grease is practised in many United States cities, but the capital required and the operating expenses are high. Moreover, such reduction plants are liable to give rise to foul odours, and many kinds of rubbish, such as bottles, tin cans, broken furniture, cast-off clothing, etc., cannot be disposed of in this manner.

The best furnaces for the cremation of refuse are to be found in England. These British destructors are of a high-temperature, forced-draught type, and need skilful firing, but they will get rid of all refuse and the resulting gases and solid residue are entirely harmless.

Plants of similar pattern are installed at Westmount, Que., Milwaukee, Wis., and San Francisco, Cal., and are giving good satisfaction.

TO NEWSPAPERMEN

To further public interest in conservation subjects, the Commission will lend to Canadian journals the cuts used in this bulletin. These may be obtained in either fine or coarse screen.

As there are only a limited number of these cuts, delays are sometimes unavoidable, but orders will always be filled as soon as possible after receipt of application. It is requested that cuts be made use of at the earliest possible date, and returned (O. H. M. S.) promptly, enclosing note showing by whom sent. We shall be pleased to receive copy of publication in which the illustration appears.

When ordering, please fill out and forward us this coupon:

Number of cut.....

Fine or coarse screen.....

Date.....

Name.....

Address.....

Water-power Data being Collected

So far as waters and water-powers are concerned, the efforts of the Commission of Conservation have, thus far, been devoted to the collection of information. To practise conservation intelligently we must, first, know what we have to conserve.

When the Commission was established, a good deal of information respecting water-powers in Canada was in existence, but nothing had been done toward bringing this data together in the form of a concise report covering the whole Dominion. Hence the first work of the Commission's Committee of Waters and Water-Powers was to collect and tabulate all the available data. It was found that the information relating to the Eastern Provinces was fairly complete but was very meagre as to the Prairie Provinces and British Columbia. It was not thought advisable, however, to withold the information respecting Eastern Canada and the report on "Water-Powers of Canada" was published in 1911. This publication also included the very limited data then available respecting the Western Provinces.

Since 1911, the attention of the Committee has been concentrated on obtaining information relating to Western Canada, to form the basis of a special report on this portion of the Dominion. In British Columbia, the Commission's water-power reconnaissances have been made in co-operation with the Provincial Government and, during the last three years, field parties have covered practically all the province from the boundary line to one hundred miles north of the Grand Trunk Pacific railway.

The principal rivers of the northern portion of the Prairie Provinces were covered by reconnaissance surveys by the Commission, while, in the southern portion of these provinces and in the Railway Belt of British Columbia, the Water-Powers and Irrigation branches of the Interior Department have been active in obtaining water-power data.

A marked advance in systematic stream measurement has also taken place in Western Canada during the last three years. The British Columbia Department of Lands and the Water-Powers and Irrigation branches of the Interior Department have established numerous stations throughout the Western Provinces where regular readings are recorded.

One of the principal by-products of the national forests of Japan is furnished by mushrooms, which have yielded in one year a revenue of a million dollars.

Spring Preparation for July and August

Dairy Farmers should Provide Now for Abundant Feed in Late Summer

For profitable management of a dairy farm, it is essential that as high a rate of milk production be maintained during July and August—when the pastures are dry and feed is scarce—as during the preceding months. If the yield of milk is allowed to decrease for a few weeks, it is impossible to bring it back that season to its proper level.

Consequently, although there is generally plenty of good pasturage during the months of September, October and November, a time when the price of cheese and butter is very high, it is of the greatest importance to feed well during the months of July and August that all possible profit may be secured from the high prices and the abundance of fodder that can be grown.

The most economical, easiest and safest way to secure abundant feed during the months of July and August, is to cultivate fodder plants to be cut down green; or part may be fed on the field.

From experience gained, the most useful plants for this purpose seem to be: vetches, peas, oats, clover, alfalfa and corn.

To each ten cows we recommend dairy farmers to prepare about as follows:—

1. *Red Clover*, 1½ acres:—Must have been sown the year previous with the mixture of peas and oats given below.

Cut 20th June to 15th July.

2. *Peas, vetches, oats* and *clover*, ¾ acre:—About the first week of May sow ½ bu. peas, ½ bu. vetches, 3 bu. oats and 10 lbs. red clover seed per acre.

Cut 15th to 31st July.

3. *Peas, vetches, oats* and *clover*, ¾ acre:—About the third week of May sow the same mixture.

Cut 1st to 15th August.

4. *Corn*, 1½ acres:—The third week of May, or as soon as possible, sow on a well drained clover-sod field, manured at the rate of 10 tons per acre, and plant in hills 3 feet apart in each direction.

Begin to cut the 15th of August. Sow ¾ acre of Longfellow and ¾ acre of Leaming or Wisconsin No. 7. This should provide fodder up to the time that other corn is ready to cut for ensilage. Any surplus from this field can go into the silo.—*J.F.*

The largest tree in the United States is said to be the "Mother of the Forest," a giant redwood in the Calaveras bigtree grove in California. It is supposed to contain 140,619 board feet of lumber. There, are however, many claimants for the honour of being the "largest tree" and the "oldest tree," and these claims, according to foresters, can not always be verified.

CROPS WHOSE CULTIVATION IN THE WEST SHOULD BE EXTENDED.

Commission of Conservation.

(Cut No. 50)

Safety First on Montreal Vehicles

Montreal newspapers report that an extensive campaign is to be waged in that city to promote "safety first" on all classes of vehicles, including street cars, automobiles, cabs, express wagons, and delivery rigs. The campaign is being undertaken on the initiative of Mr. A. Gaboury, Superintendent of the Montreal Tramways Company. The co-operation of all owners of vehicles has been invited, and letters are being sent to every motorman, chauffeur, and horse-driver throughout the city, pointing out the various ways in which accidents occur and emphasizing the importance of guarding human life and limb. The moving picture theatres will be pressed into service and special films will be shown to illustrate how indifference and carelessness bring their own penalty. Free passes to these exhibitions will be given to school children. Posters and signs will be displayed in prominent places all over the city, and no device for educating the public as to the importance of taking proper precautions will be overlooked or neglected.

Alfalfa as Hog Pasture

Since economical pork production depends largely upon the consumption of a large quantity of cheaply grown feed, hogs should, when possible, be pastured on some clean, tender, and palatable forage crop, such as clover, alfalfa or rape. While the cost of pork production may be materially reduced in this way, it is desirable to feed grain or other concentrated feed in addition. Mature breeding stock may be maintained on good pasture, but young and growing hogs should receive additional feed. Hog growers differ regarding the quantity of grain to be fed while on pasture but a medium ration would be one that is equal to about 2 per cent of the live weight of the hog while growing and then a full grain ration when finishing. No hard and fast rule can be laid down for the supplemental grain ration, but not feeding any grain almost invariably results in a stunted hog. Mr. W. D. Lang, of Indian Head, Sask., who is doing illustration work for the Commission of Conservation, obtained the following results with hogs pastured on less than one acre of alfalfa:—

Received from sale of 50 hogs		$656.60
Feed used:—		
½ ton shorts	$ 11.00	
150 bus. oats	45.00	
400 bus. barley at 40c	160.00	
200 bus. wheat screenings at 50c	100.00	
		316.00
Profit		$340.60

(Cut No. 51)

A type of implement which should be discarded. It does poor work and it requires just as much man-power to operate it as would an up-to-date five or six-section harrow, which would do three times the work.—F. C. N.

(Cut No. 52)

A first class outfit, with a wide sweep doing good work on a large area daily. No more man-power is needed to operate this outfit than is required for one doing a third the work. This is one way to alleviate the labour problem.

(Cut No. 53)

The underslung or drop-axle wagon used extensively in the Maritime Provinces. It is very handy for hauling stones, seed-grain, roots, apples, manure, etc., about the farm. On account of being low it is easily loaded and unloaded. It is made narrow in front to make turning easy. Any country blacksmith can fit up axles for such a wagon at very small cost.—F. C. N.

(Cut No. 54)

A handy home-made farm truck. The wheels from an old mower are utilized for the front, while a couple of old binder drive-wheels are used for the rear. Instead of allowing these to go to the scrap pile, they can be used to advantage by building a frame and fitting in axles, thus making a very convenient and inexpensive farm wagon. Try it.—F. C. N.

(Cut No. 55)

THE BEGINNING

With the exception of patches containing a few square feet, there is, on this prospective farm, no soil that approaches a loam in texture. It is mostly gravel and sand.

(Cut No. 56)

THE END

One of the many abandoned farms in the Trent Watershed. The amount of human energy expended in attempting to make a living from such areas has been, and still is, enormous.

(Cut No. 57)

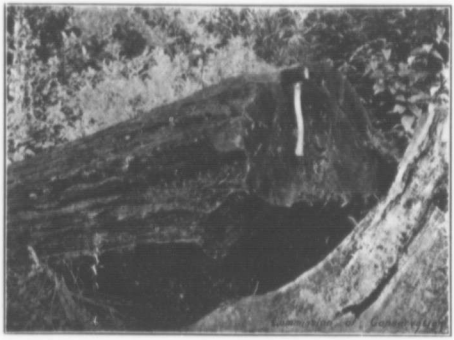
Remnants of two large spruce tops, ten years after being properly lopped, Nehasane Park, Adirondacks.

(Cut No. 59)

Cutting in a pine forest with much inflammable material on the ground. The adoption of proper lopping and piling methods, with supervised burning at favourable seasons, would prevent many disastrous fires.

(Cut No. 58)

Unlopped tops, Little Tupper Lake, Whitney tract, Adirondack preserve. Fire has run through this top, consuming the finer material and carrying fire to the adjoining live balsam.



(Cut No. 60)

White pine log cut 23 years ago and left as defective according to standards at that time. In certain townships of the Trent Watershed there is still much material of this kind in the woods, in some cases, lumbermen are now hauling such logs to their mills.

(Cut No. 61)

FORMER PINERY

A few seed trees remain, but not enough to re-establish the crop on a commercial basis. There are 389,000 acres in this condition in the Trent Watershed.

(Cut No. 62)

PINE REPRODUCTION

Where seed trees were left after cutting and where not too severely burned, the pine is reproducing itself in commercial quantities. This is taking place on 75,000 acres in the Trent Watershed.

A City Survey the Basis for a City Plan

From the Chairman of the U. S. National Conference on City Planning

The basis for a city plan must be a city survey covering information as to four classes of fact:

(1) The facts of the physical environment of the people of the city.

(2) The social facts concerning the people themselves and the reactions between them and their physical environment;

(3) The economic and financial facts as to the resources of the community and the possible means of bringing those resources to bear upon public improvements, and

(4) The facts as to the legal and administrative conditions which must be reckoned with in any attempt to control the physical environment.

—Frederick Law Olmsted.

The Invisible Element in City Planning

How City Planning is Viewed by a Leading Franchise Expert

City planning implies three things:

1. An organized community spirit.
2. The cultivation of civic foresight.
3. A sufficient degree of municipal self-control to make planning worth while.

It involves something more than civic centres and civic beautification—even more than the reservation and development of spaces for public use. It involves public control of the development of essential street utilities, especially transportation. City planning is impotent unless it goes into the realm of the invisible, and takes cognizance of franchises, contracts and vested rights. If these are not brought under control, city planning is largely futile.

—Delos F. Wilcox.

City Planning Exhibition

At the International Conference on City Planning, in Toronto, May 25-27, an exhibition of models, maps, plans and diagrams will be held, illustrating the latest practice in Europe and America. Canadian cities and towns, and Canadian architects and engineers are cordially invited to send exhibits. All communications should be addressed to W. S. Lecky, Commission of Conservation, Ottawa, Ont.

The exhibits may be classified under the following heads: *Planning of Streets; Water Supply and Sanitation; Parks and Playgrounds; Waterways, Docks and Bridges; Railroads and Transit; Helping Industrial Prosperity; Garden Cities and Suburbs; Housing the People; Civic Centres and Public Buildings; Comprehensive Plans.*

Canadian social reformers will derive much benefit by attending this Conference, listening to the addresses, taking part in the discussions, and by an inspection of the instructive exhibits that will be there shown.

On the Invitation of

the Government of the Dominion of Canada

an

International Conference on City Planning

will be held at the

Convocation Hall of the University of Toronto

Toronto, May 25, 26, 27, 1914

Field Marshal H. R. H. The Duke of Connaught, the Governor General, has graciously consented to open the Conference on May 25, at 10.30 a.m.

Stunted Children or Better City Planning

An Important Aspect of City Planning as Emphasized by the President of the Playground and Recreation Association of America.

It has been truly said that in the planning of our American cities the children were left out; for without a playground the child cannot grow as nature intended that he should. Play is growth. The play instincts prescribe the action through which the child's mind, body and character shall be formed. The child needs play as flowers need the sun. Rich people can live in the suburbs or sent their children to boarding school, but for the average city dweller the alternative is stunted children or better city planning.

—Joseph Lee.

The "children of a larger growth" also need recreation. City planning may provide for them: parks, boulevards, bathing houses, dancing pavilions, social centres, concert halls, water-front promenades, golf links and tennis courts.

City Planning Aim and Procedure

A Summary by Columbia University's City Planning Lecturer

City planning is the name given to the science and the art of providing for the most practical and agreeable development of a city or town.

It would prevent the recurrence in newer districts of the mistakes of the older.

It would profit by that which time has proved worth-while in the experience of any city.

It would diagnose the troubles of a community from all points of view; social, political, economical, esthetic.

It would prescribe the remedy best suited to the particular needs of the case, with a view also to preserving the individuallty of the community.

It would determine the relative urgency of the various needs, and plan a consistent program of procedure covering every phase of the subject.

It would concentrate on these matters in turn and get concrete results.

—George B. Ford.

What City Planning Means

A Graphic Presentation by a Member of the Massachusetts Homestead Commission

CONSERVATION of human energy and life	NOT merely superficial beautification.
ECONOMY, necessity, scientific reality	NOT extravagance, dreams, fads.
A definite PLAN of orderly development into which each improvement will fit as it is needed	NOT the immediate execution of the whole plan.
BUSINESS methods for city work	NOT the surrender of the city to artists with vague schemes for civic adornment.
CORRELATION of the city's activities	NOT wholesale alterations at great expense, with no assured financial returns.
Encouragement of COMMERCE and facilitation of business	NOT the interruption of commerce and business.
PRESERVATION of historic buildings with their associations	NOT the destruction of the old landmarks and city individuality.
The development of an AMERICAN city	NOT imitation of London, Vienna and Paris.
Exercise of common FORESIGHT and prudence	NOT ruinous expense and debt.
HAPPINESS, CONVENIENCE, HEALTH, for all citizens	NOT merely expensive boulevards and parks available only to the rich.

—Arthur C. Comey.