

April, 1919

Volume XII, No. 4

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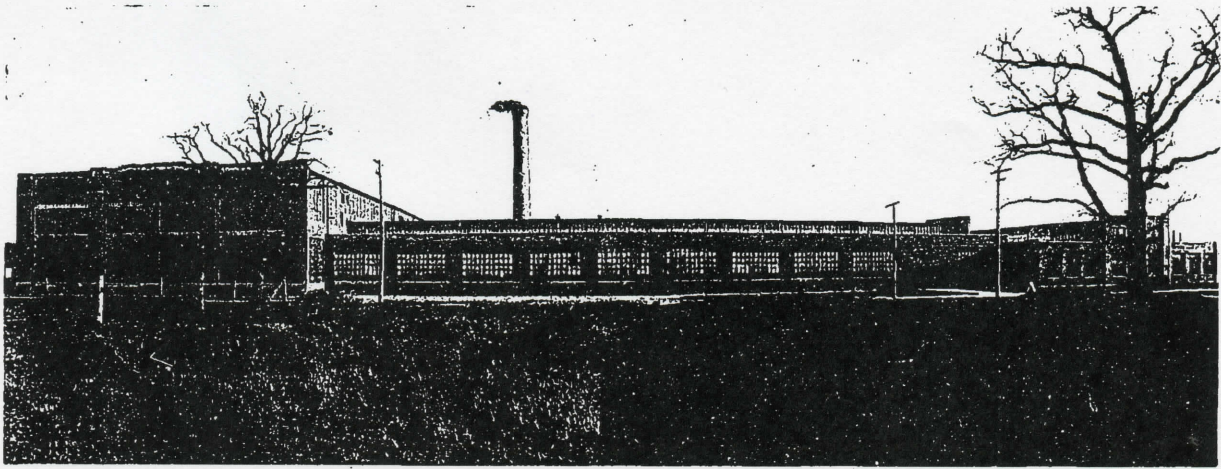
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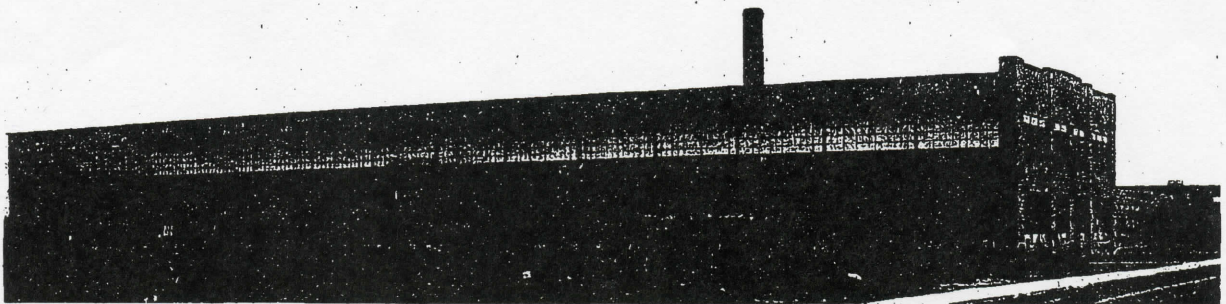
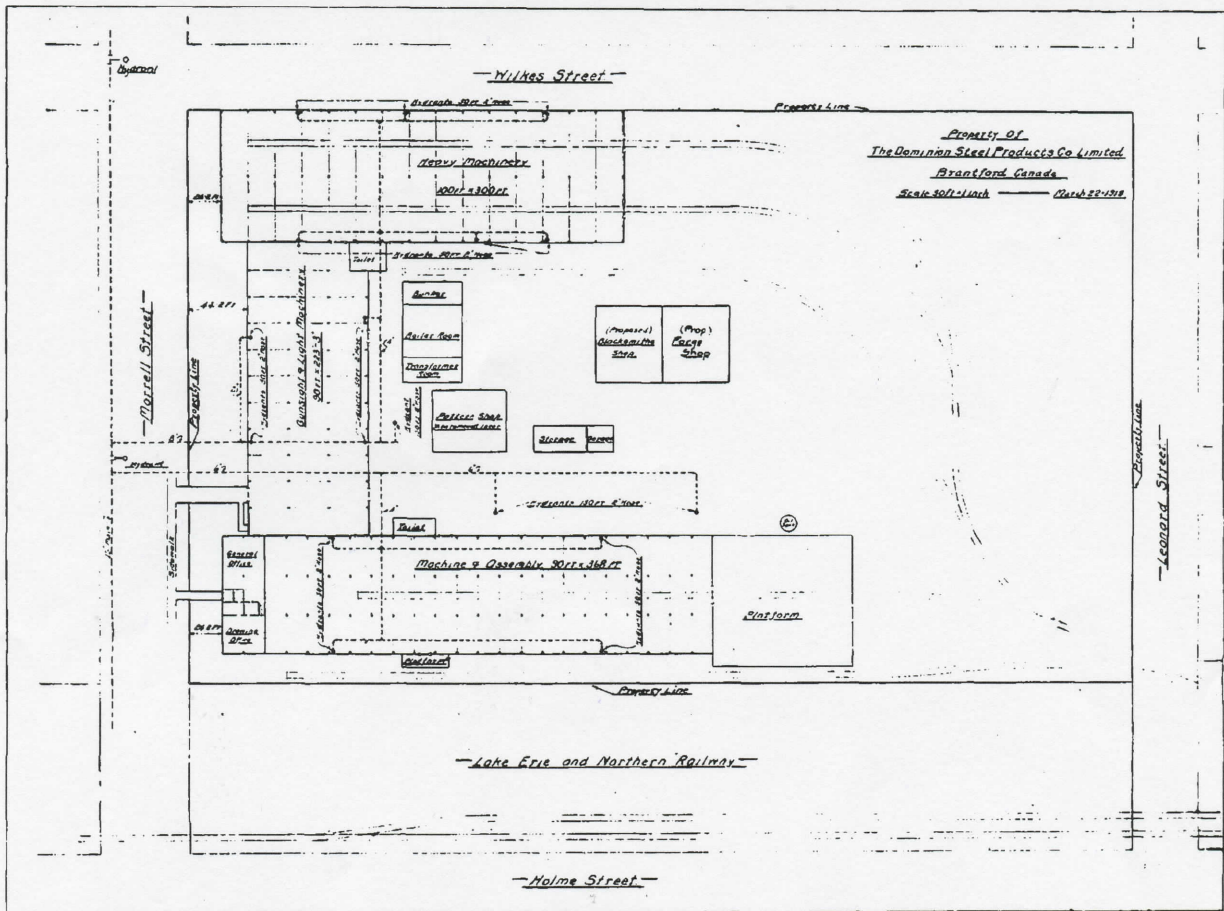
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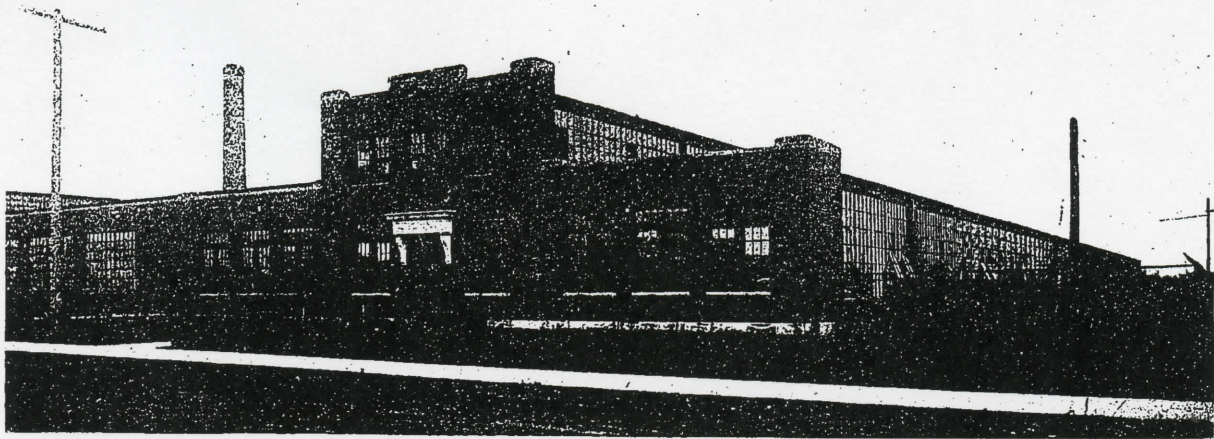
MONTREAL BRANCH OFFICES NEW YORK



GENERAL EXTERIOR VIEW.



VIEW SHOWING "DAYLIGHT" CONSTRUCTION OF SIDE WALLS.
PLANT OF THE DOMINION STEEL PRODUCTS COMPANY'S, BRANTFORD, ONT.



OFFICE ENTRANCE INTO MAIN BUILDING.

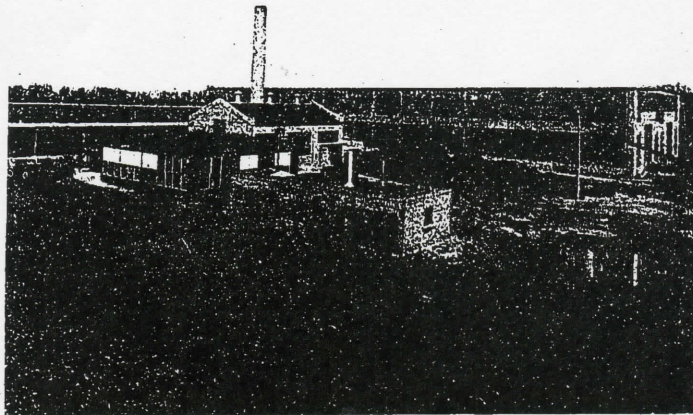
Dominion Steel Products Co.'s Plant

IT is doubtful if one can find in all Canada an individual record of the rapid growth to permanency and prosperity more striking than is furnished in the case of the Dominion Steel Products, Limited, of Brantford, Ontario. Barely three years ago the forerunner of this business was apparently a mushroom growth thrown up by the stimulus of war, a "war baby," as it were, destined by all signs to a brief span of commercial life and then a quick and sudden cessation of all activities. At that time the plant consisted of a wooden building, hastily erected, to turn out the only business on their books, which was the machining of 25,000 shells for the Imperial Munitions Board. However, the filling of this initial order was purely a business expediency adapting executive and engineering ability to an exigency of the times, and was incidental to, rather than the direct object of what the management had in mind, namely, the establishment of a permanent industrial plant. This is evident in the size and durable character of the buildings which have been erected, as well as in the modern housing scheme which the company is carrying out for the benefit of its employees.

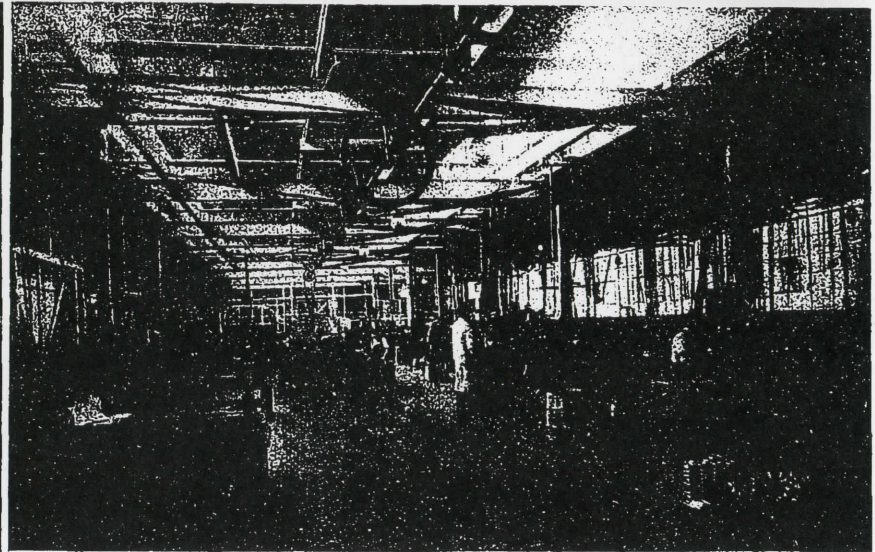
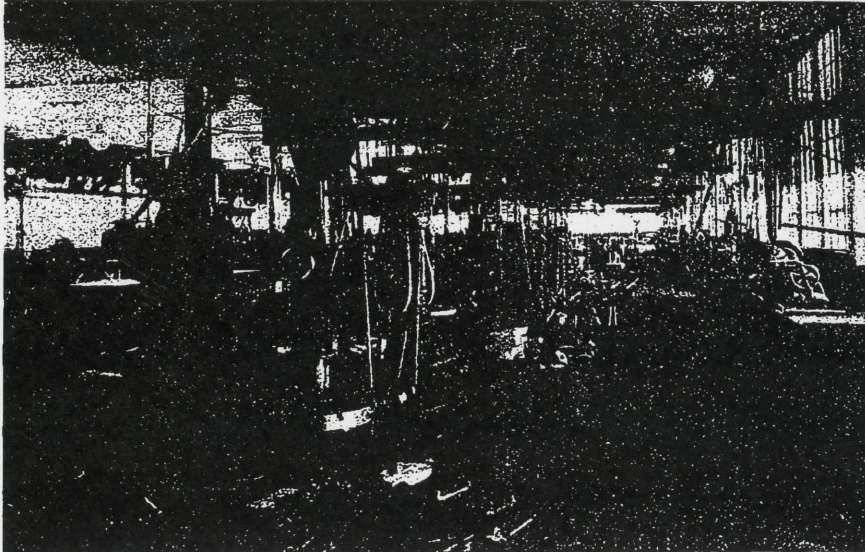
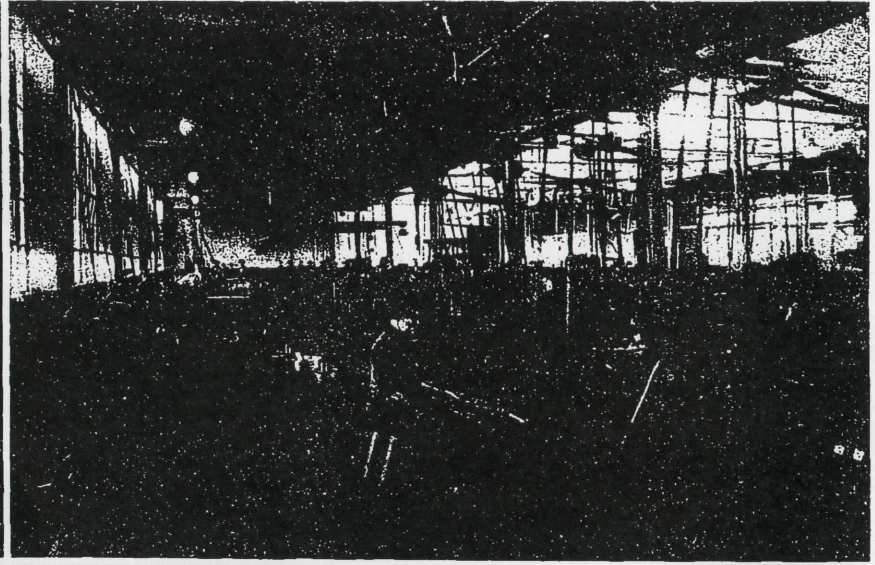
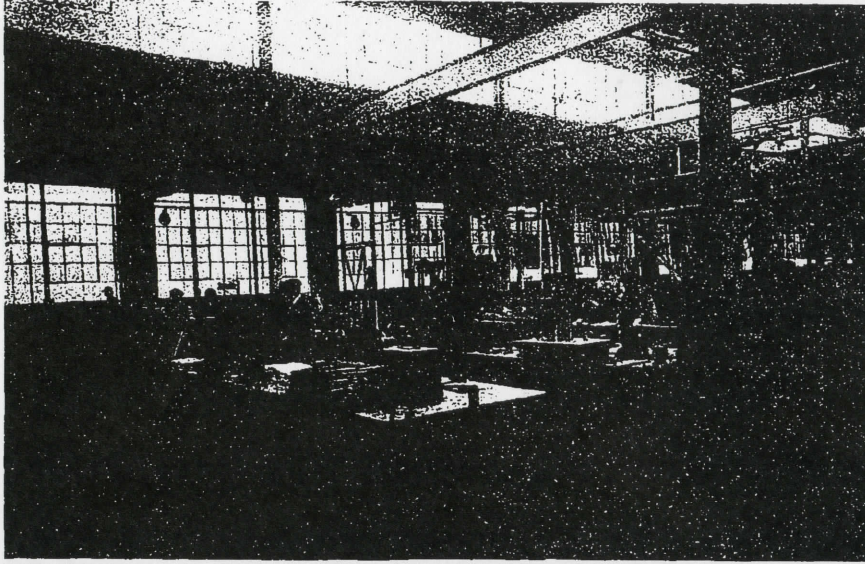
In other words, the idea of the directors from the first was to organize an industry

which would be capable of taking care after the war of normal trade requirements for manufactured steel products in the Canadian field. In consequence of this, a modern plant has been established and equipment of a standard type installed throughout. Under the impetus of increasing business, it has grown in a remarkably short time to its present dimensions, comprising a number of "daylight" units which cover in all six acres of ground and contain 85,000 square feet of floor area. The first building of the group was erected in 1916 and completed in 59 days' time. Two more units were started in the middle of January, 1918, and were ready for occupancy three months later. Besides the operating departments, there is a blacksmith and forge shop, boiler-house and transformer-room, pattern shop and storage located in separate buildings at the rear.

The construction throughout is of steel frame work, with brick enclosing walls and concrete floors and foundations. Side tracks from the main line of a railroad which passes alongside the rear of the property extend through the full length of both end buildings, thus affording excellent facilities for loading and shipping purposes. These end structures are



BOILER HOUSE, TRANSFORMER ROOM AND STORAGE.



UPPER VIEWS: ASSEMBLY AND TOOL DEPARTMENTS

LOWER VIEWS: SECTIONS OF NO. 1 AND NO. 2 SHOPS.

DOMINION STEEL COMPANY'S PLANT, BRANTFORD, ONT.

100 x 300 feet and 90 x 368 feet in size, and flank another department 90 x 223 feet at the front of the property. The several factory rooms are quite lofty in height, with very little overhead obstruction. Myriads of small windows set in the steel sash forming the side wall areas bathe the place in daylight. The machines, which range from the ordinary engine lathe to a fifteen-ton boring mill and a forty-ton planer, are all operated by electricity. While this machinery has been utilized in turning out war work, the policy of the company has been not to take on work which would involve the tying up of capital in special machines. Hence the equipment with one exception is of standard type, thus enabling the management to readily adapt its facilities to any of the various lines of steel products which they choose to manufacture.

Besides providing a working environment which gives the men well-lighted and well-ventilated departments in which to do their jobs, the company has undertaken as part of its development a housing scheme which is particularly noteworthy, especially in view of the housing problem at the present time being such an important and vital question. For this purpose the company has acquired a forty-acre site within convenient distance of the plant. That is to say, from four to six minutes' walk is all that will be required for the occupants to reach

their place of work. Notwithstanding this proximity, the plant is sufficiently remote so as not to intrude itself upon the domestic aspect of the scheme.

The creation of this residential area is in the hands of Messrs. Scott & Wardell, a firm of Hamilton architects, who are responsible for the designing of the various houses, while the ground features are being carried out by H. Dunnington Grubb, Toronto, the well-known landscape architect. Lansdowne Park Estate, as the place will be known, will have winding avenues and no straight streets. Trees and shrubs will be planted to give the various homes an attractive setting, and the appearance of the place when completed will be that of an English residential area. Further reference to this development, which is one of the first undertakings of its kind in Canada, is made in the following article, which takes up "Industrial Housing" in a more general way and forms in this connection an interesting and related subject. Already about fifty of these homes have been built, but are not yet all ready for occupancy. The company's investment in this development will be about \$4,500,000 for the first hundred houses. Rental charges to employees will be based on the carrying charge of the property. The houses are well designed, built of first-class materials, contain electric light, bath rooms, polished floors, electric kitchen stoves, and are complete and up-to-date in every way.

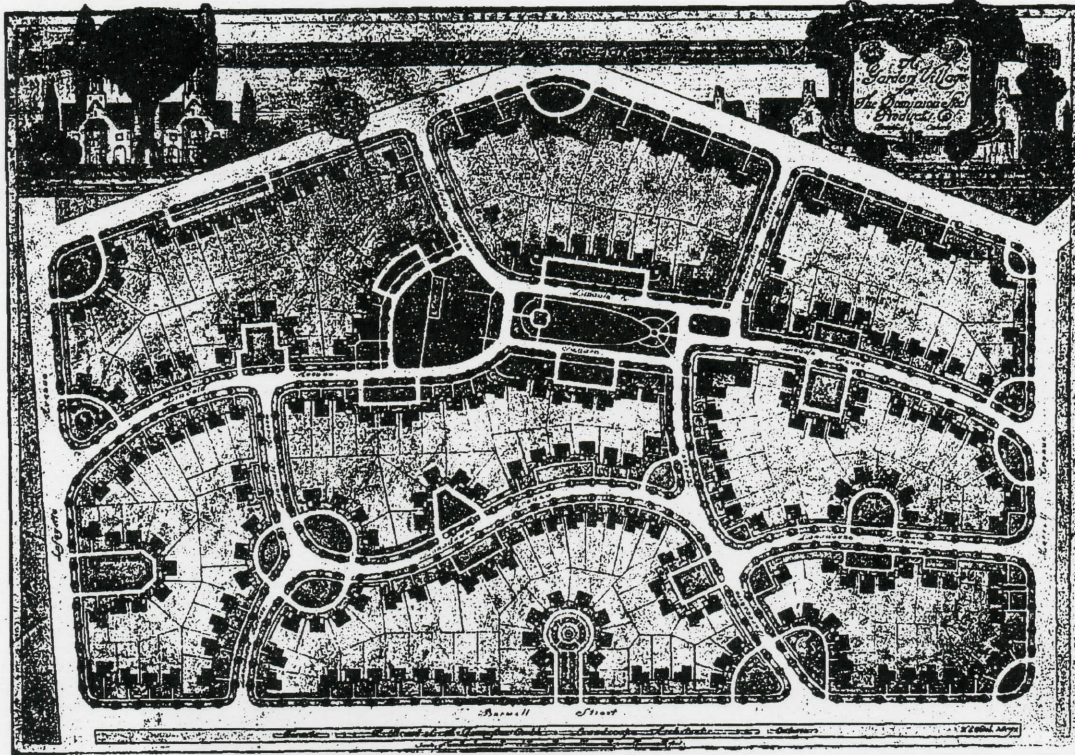
Industrial Housing

By H. B. Dunnington Grubb.

THE intelligent study of industrial housing, like almost every other social and economic problem, must begin with an examination of the effects of war. In 1914 a British statesman remarked that the outbreak of a European war would set back the march of social progress fifty years. The reverse seems to have actually occurred. In England the war has made possible a multitude of experiments in social reconstruction and co-operation which, in times of peace, could scarcely have been accomplished by a generation of agitation. Both employer and employed have found their most sacred principles not only challenged, but arbitrarily swept away. The fixing of prices, the rationing of necessities, the replacement of men by women, the limitation of profits, are all experiments which have passed through the test. The man in the street has taken thought. He is in the mood not only to retain many of the emergency war measures, but to experiment still further. As war measures he has witnessed

economies effected by co-operation which would, if carried further, result in inestimable stimulation of industry, and general prosperity. Within the next year we may expect to see a British Unionist Government pass such legislation as would have been described as the wildest folly by radicals before the war. Many of the injustices of our social system are about to be brought before the court of public opinion. One of the first to be remedied will be the matter of housing.

The relationship between a high standard of living conditions and production is just beginning to be realized. In all large cities we see a tendency for industry to move further and further away from congested centres of population. In some cases the movement is from the centre to several miles outside beyond the suburbs; in others the factory is moving from the large city to the small town, while the most recent movement of all is from the city to bare agricultural land, far removed from urban



GROUND SCHEME, LANSDOWNE PARK ESTATE DEVELOPMENT, BRANTFORD, ONT. H. B. DUNINGTON GRUBB, LANDSCAPE ARCHITECT.

conditions. Recent statistics in the United States show a much larger proportional percentage of industrial failures in congested areas than in thinly populated districts.

One of the principal underlying causes for this movement is the recognition by capital of the value of a high standard of living conditions for the worker. While the union is shouting conscription of wealth, whatever that may mean, higher wages and shorter hours, the operative is really more interested in improved living conditions for himself and his family than he is in a higher scale of wages, with which he imagines that he can equip himself with the amenities of life.

The United States Steel Corporation has placed so much emphasis upon the necessity for control of the housing and surroundings of its workers that instead of locating its new plants in any existing town it has created new town-sites for its workers, as at Gary, Ind., and Ojibway, Ont. This policy involved the purchase of vast tracts of land in each case, the expenditure of huge sums in the erection of dwellings, the provision of public services, such as pavements, sidewalks, sewers, gas, water and electricity. The experience at Gary proved so successful that the experiment is being immediately repeated at Ojibway, near Windsor.

At first sight the obvious advantages of locating in a city would seem to be so great as to make the creation of new townsites difficult to explain. Any city or town would offer almost

untold inducements to a great industry in order to obtain taxing power over thousands of well-paid employees. Accommodation of a sort would exist. No great sums of capital would have to be spent on city services, house-building, etc. A fluid labor market would be provided ready to hand. A brief examination of the possibilities of the townsite method, however, not only seems to explain the action of such great industries as the United States Steel Corporation, but also to forecast the time when smaller manufacturers will combine in order to obtain similar benefits, and finally the day when the state will step in and undertake the work which private industry is already finding so necessary that it must attempt it on its own behalf.

1. By the purchase of agricultural land on a large scale the corporation will be able to control land values, and so secure for their employee abundance of light, air and space at a much lower cost than would have to be paid for overcrowded accommodation in the city, possibly at a great distance from the works.

2. By retaining control of building operations the company will be able to protect the employee against exploitation by the speculative builder. The formation of building companies with limited dividend undertaking construction on a large scale will enable the tenant or purchaser to obtain better and cheaper accommodation than would be possible under (a) individual effort. (b) construction by the speculative builder.

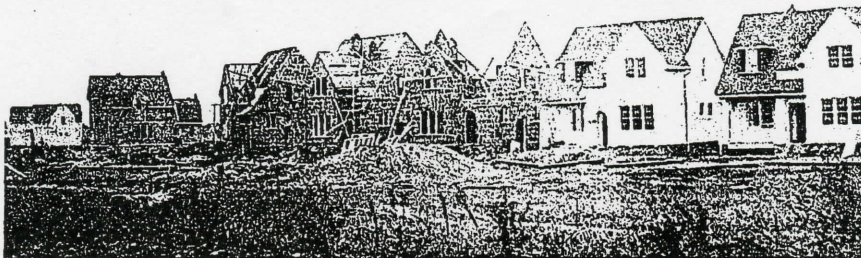
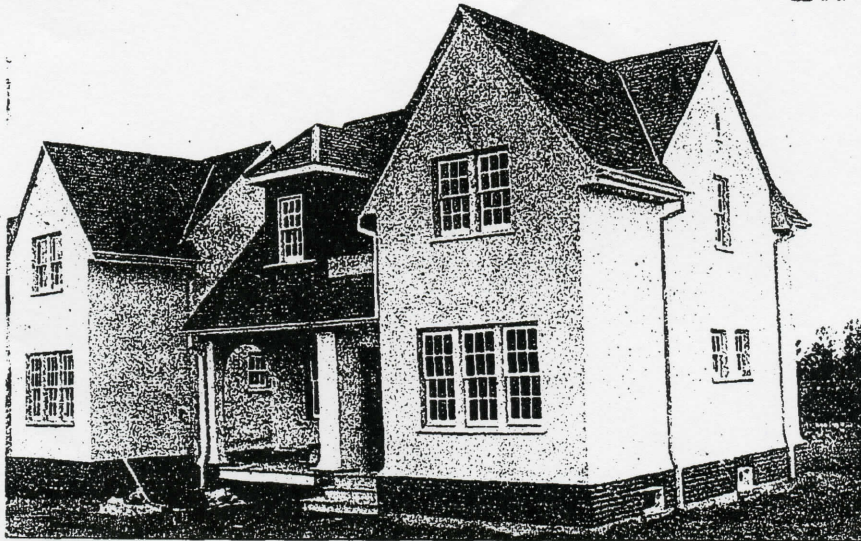
3. By developing the tract as a whole and planning it out in a sensible manner:

(a) An enormous saving in the cost of public services can be effected. Seventy-five per cent. of the streets can be arranged to receive no through traffic. Pavements and sidewalks can be reduced to a minimum and be of lightest construction. Water and sewer mains can also be greatly reduced.

(b) The number of houses per acre and general density of population can be determined

overcrowding, with abundance of air and space for their families, and moreover at a lower rental than that obtainable for incomparably worse accommodation in the city, will produce a community likely to remain more happy and contented than the slum-dweller. Famine, hopelessness, misery and discontent, as President Wilson has pointed out, provide the ideal propagating ground for Bolshevism and social unrest.

Industrial housing in Canada is making a



LANSDOWNE PARK ESTATE, BRANTFORD, ONT., SHOWING TYPE OF HOUSES BEING ERECTED FOR THE DOMINION STEEL PRODUCTS COMPANY. SCOTT & WARDELL, ARCHITECTS.

and arranged for maximum health of parents and children.

(c) Parks, open spaces, play grounds, allotment gardens, etc., can be adequately provided.

(d) Public buildings of all sorts, including shops, schools, amusement places, etc., can be placed where most needed.

4. By retaining control of all the land the increasing land values, both on the part developed and also beyond, can be made to accrue for the benefit of the community, resulting in freedom from taxation or even a bonus.

5. By supplying a high standard of living conditions for the workman and his family an increased standard of output and efficiency will be obtainable. Modern cottages, free from

rapid start. The town of Ojibway, for the Steel Corporation, perhaps the most advanced example, is now well under way. In almost all our industrial centres an acute house famine exists, owing partly to concentration from country districts for war production and partly to so high a building cost that private speculative building capital has been diverted to other channels for the last four years.

In the city of Brantford, Ont., the shortage has been so great that well-to-do citizens have been compelled to come patriotically forward and offer to share portions of their houses with the munition worker and his family.

The Dominion Steel Products Co., Ltd., of Brantford, finding the housing of large numbers

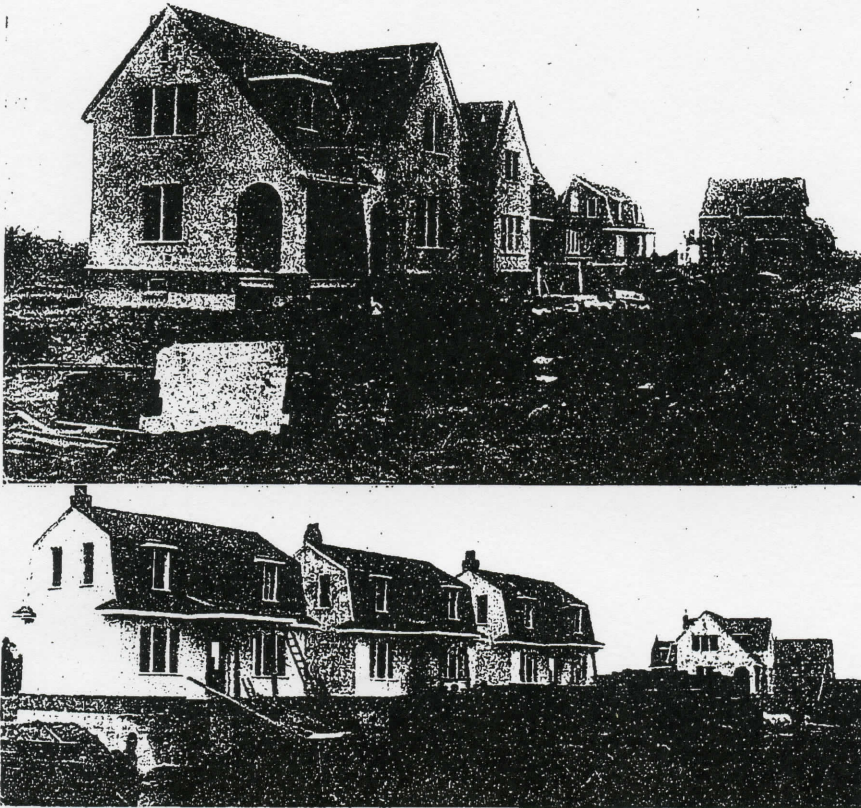
of additional mechanics an impossible problem, decided upon the construction of a large number of workmen's dwellings as the only possible solution of their problem.

With their new plant located well beyond the building fringe of the city of Brantford, the acquisition of some thirty-three acres adjacent to the plant and the building fringe was easily accomplished. As the land in this case was not agricultural in price, and as the area involved was small, the enterprise must be classed as a

lowest possible assessment against frontage for improvements.

The central motive for the scheme is the village green, around which are grouped residences and the few public buildings, such as stores, entertainment hall, etc., which would be needed. The street plan follows closely the contours of the land.

A definite effort has been made to arrange groups of houses as units and courts for the sake of privacy, seclusion and architectural



PROGRESS VIEWS, LANSDOWNE PARK ESTATE DEVELOPMENT, BRANTFORD, ONT. SCOTT & WARDELL, ARCHITECTS.

workmen's model suburb rather than a town-site.

The design of thirty-three acres as a model workmen's garden suburb will be governed by principles varying greatly from those controlling a town-site. In the former case the property, while forming to some extent an entity in itself, will also have to be treated as a small section of a larger whole; in this case the city of Brantford. A glance at the plan will show that no through traffic has been provided, indeed, a conscious effort has been made to prevent it, as excellent facilities already exist all round the boundaries. As a result the streets will be private and quiet, but, most important of all, they can be constructed of minimum width (eighteen feet), and light construction, thus insuring the

effect. It has been hoped that by this method some sense of pride, and even competition, in the appearance of each court or unit might be acquired by the tenants. In some cases, at least, special names might be given to the courts. The perspective sketch shows a suggestion for the treatment of a typical court.

As will be seen from the plan, a definite attempt has been made to close the vistas of all streets in order to provide the greatest possible number of street pictures.

The architects, Messrs. Scott & Wardell, of Hamilton, have developed some ten types of houses of varying size and design, but all possessing a quiet, harmonious English domestic character. Out of some two hundred and fifty house sites arranged for on the property, fifty

houses are now in process of erection. Owing to the very high wages prevailing at the time, it was thought that tenants would prefer detached houses in spite of the additional cost.

As the scheme is still far from completion exact figures as to cost, including land, house, improvements and general services, are not yet available. As the development has gone forward during the period which will probably form the highest peak of prices, the cost will probably provide no useful example as an indication of building costs for future efforts in industrial housing.

In any case, it may be said quite conclusively that the type of houses under construction are entirely out of the reach of the average factory operative, as rents ranging from \$30 to \$40 per month will have to be charged in order to pay minimum interest upon the investment.

For this reason the work now being done can hardly be said to solve the real problem of industrial housing, which demands model houses at rentals of from \$18 to \$25 per month.

The lines along which economies will have to be effected in order to make such rents possible have already been indicated. They may be summarized as follows:

1. Cheaper land by moving the factory out, either singly or co-operatively.
2. Skilled planning which will concentrate traffic on a few wide streets and permit of lightest construction of pavements, curbs, sidewalks, sewers, etc., on the secondary streets.
3. House construction on a large scale, providing for economy in purchasing.

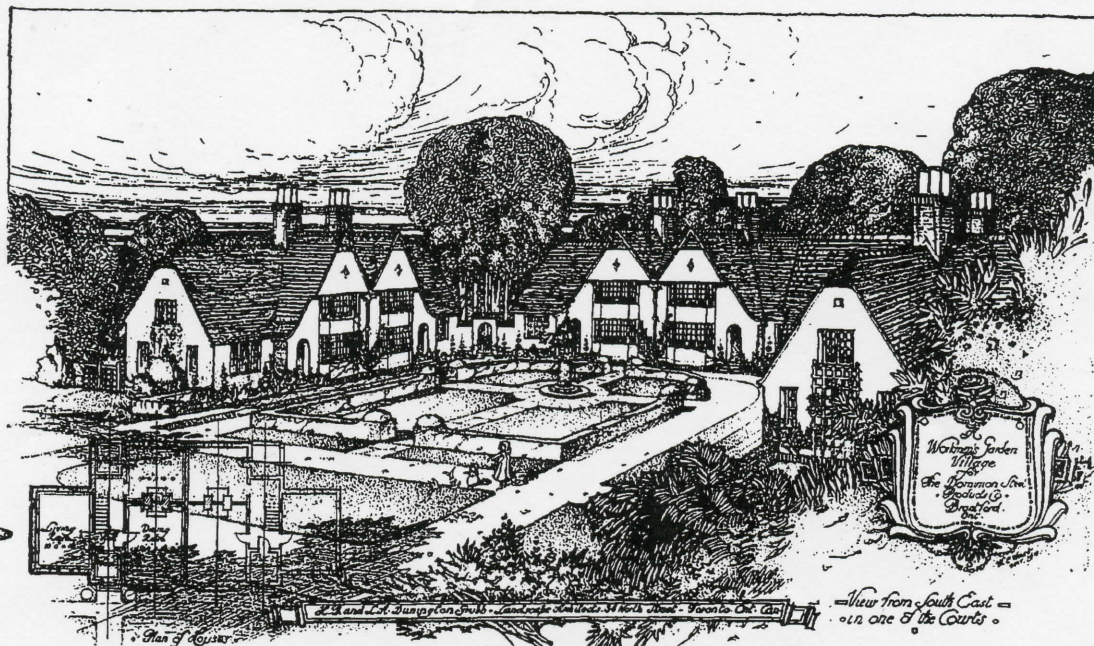
4. The construction of houses in connected blocks and courts, avoiding the extravagance of detached houses.

No building of small workmen's cottages has been done during the last four years. Prices still remain so high that little will be done in future by speculative builders except by overcrowding. This must at all costs be avoided for on the property,

Vancouver Permits

Building operations in Vancouver, B.C., continue to show an improvement. The volume of new work for the first three months of this year amount to \$269,020, as against \$181,480 for the same period in 1918. The total for March was \$119,013, which is a substantial gain over the corresponding period of last year. It is reported that the outlook is most favorable.

It is understood that the Province of British Columbia is planning to co-operate more closely with the lumber trade in endeavoring to obtain permits from the British Admiralty to ship lumber overseas. The demand in France and Belgium for lumber is enormous, and the only obstacle in the way of Canada securing a portion of the contracts is the difficulty encountered in transportation. It is also reported that an active effort is being made to increase the home market by going after business for British Columbia lumber in the other provinces. The scarcity of houses, together with materials required for other classes of work, it is felt, should greatly stimulate the demand.



PERSPECTIVE VIEW SHOWING THE RELATION OF THE HOUSES TO THE SITE IN THE BRANTFORD SCHEME AS IT WILL APPEAR WHEN COMPLETED.