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THE HOUSING POLICY
IN THE
NETHERLANDS

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THE HOUSING POLICY IN THE NETHERLANDS

Chapter I.

THE HOUSING LAW.

The housing law published in the *Official Journal* on June 1st, 1901, is divided into eleven paragraphs, which, after the amendments of 1921 and 1931, are headed as follows :

1. Rules concerning the conditions with which dwellings or other buildings must comply.
2. Particulars of number of dwellings.
3. Improvement of dwellings ; overcrowding.
4. Condemnation of buildings as unfit for habitation, evacuation, closing and demolition.
5. Diversion of housing accommodation from its proper purpose.
6. Expropriation.
7. Regulations concerning the building development of estates and the purpose for which they are to be used.
8. Financial assistance from communes.
9. Financial assistance from the State.
10. Penalties.
11. Final provisions.

The following observations may be made on these paragraphs.

Ad 1. — Under this law, the communal authorities are empowered to lay down the conditions which shall govern the erection of dwelling-houses, etc. Article 1 of the law lays down that the communal council must state the conditions that have to be complied with :

- (a) For the erection of dwelling-houses ;
- (b) For the total or partial modernisation, alteration or enlargement of dwelling-houses ;

- (c) For the utilisation of premises for housing purposes ;
- (d) Concerning existing dwellings.

Furthermore, regulations must be laid down concerning the occupancy of dwelling-houses by suitable tenants.

All these regulations are generally published together in the communal bye-laws on housing, regarding which Chapter IV of this report should be consulted.

In addition, bye-laws must be passed :

(a) Fixing a front building-line — *i.e.*, a line marking, in the case of either building, complete modernisation or alteration, or enlargement, the minimum distance from the roadway at which buildings may stand (apart from exceptions allowed by the bye-laws themselves) ;

(b) Fixing a rear building-line — *i.e.*, a line marking, in the case of either building, complete modernisation or alteration, or enlargement, the minimum distance from the side opposite to the roadway side at which buildings may stand (apart from exceptions allowed by the bye-laws themselves) ;

(c) Relating in other respects to the situation of buildings with reference to each other ;

(d) Relating to the height of buildings.

These stipulations are generally included in the housing bye-laws. By a special decision of the communal council, in execution or fulfilment of, or in derogation to, the bye-laws defined under (a) and (b) of the previous paragraph, stipulations may be laid down for the fixing of a front or rear building-line for dwellings and other buildings on one or more existing or future roads or parts of roads, the situation of which is definitely mentioned in the municipal decision.

Ad 2. — This paragraph contains provisions concerning the establishment of housing exchanges and the taking of a housing census.

Every commune with more than 20,000 inhabitants, unless specially exempted from the obligation, and any other commune designated by the Crown, is bound to establish a housing exchange.

Moreover, communes may be required to take a housing census. Grants may be made from the State Treasury to the communes towards the cost of housing exchanges and housing censuses.

Ad 3 and 4. — Under the provisions embodied in these paragraphs, the communal authorities are empowered to cause dwellings to be improved, and, in so far as they are unfit for habitation and cannot be restored by repairs to a habitable condition, to condemn such dwellings as unfit for habitation and ensure their evacuation within a given period. In this connection, Chapter V of this report should be consulted.

Ad 5. — This paragraph makes it possible in periods of housing shortage to prevent dwellings from being used for other purposes or demolished.

Ad 6. — This paragraph governs the expropriation of estates, whether built on or not, for the requirements of town-planning.

Expropriation may be ordered for the evacuation of built-up areas or for the removal of dwellings, if owing to the particular situation improvements cannot be achieved by any other method. Furthermore, land may be expropriated, if necessary, for the execution of a definite building plan established in the interests of housing. Finally, land may be expropriated in connection with an approved plan of extension, or by reason of a front building-line or the prohibition of building.

All such expropriations are effected by order of the communal council, subject to the approval of the Crown — *i.e.*, without any previous declaration at law to the effect that the expropriation is in the public interest.

Ad 7. — In this paragraph, rules are laid down concerning the establishment of extension plans, building regulations, regulations referring both to the nature of the building development and to the use of land situated in the built-up area, and district planning.

On these points, Chapter III of this report should be consulted.

Ad 8 and 9. — With regard to these “ financial ” paragraphs, the reader is referred to Chapter II of this report.

Ad 10 and 11. — These paragraphs contain the necessary provisions regarding penalties and one or two final provisions — to the effect, for instance, that neither the provisions of paragraphs I to 5 inclusive of the housing law nor the communal building bye-laws shall apply to temporary dwellings, such as sheds, caravans, tents and other similar erections, provided they be inhabited for not more than five years.

The provisions applying to such erections are contained in the Ordinance regarding Movable Dwellings.

Chapter II.

FINANCIAL PARAGRAPHS OF THE HOUSING LAW.

On the basis of the provision in paragraphs 8 and 9 of the housing law, loans and subsidies for the purchase of land and for the building of houses and to cover housing improvement costs may be granted to building associations which are recognised by Royal Decree as working exclusively for the improvement of housing conditions.

Communes may also be granted loans and subsidies for these purposes from the State Treasury, to be used for the payment of interest and amortisation. Furthermore, loans may be granted to communes for the construction of workmen's dwellings whenever municipalities wish to construct these on their own account.

The great importance of these paragraphs was apparent from the very first years in which the housing law came into force.

As compared with the regulations in other countries, it is interesting to note that the loans are not limited to a specified proportion of the value of the buildings to be erected. The entire amount — *i.e.*, 100% of the building costs — is advanced to communes and associations in the form of a loan.

During the first years in which the housing law was in force, the rate of interest was fixed in each separate case in accordance with the quotation of the 3% Nederlandsche Werkelijke Schuld on the Amsterdam Stock Exchange; on August 1st the interest was $3\frac{7}{8}\%$. Interest and amortisation are paid together in the form of an annuity; at an interest rate of $3\frac{7}{8}\%$ and a fifty-year time-limit for amortisation, these amounted to 4.556%. The rate of interest is at present 4%.

Municipalities are solely responsible to the State for the payment of interest and amortisation, but they may secure themselves in respect of associations by instituting a first mortgage. They are, moreover, entitled at any time to seize the property of the associations, taking over the debts and charges attaching thereto.

Accordingly, building by associations is based on co-operation between bodies that have sprung up from the community itself and the public authorities. The former are expected to provide

disinterested labour and devotion to the cause, while the latter provide capital, advice and supervision.

The facilities provided by the housing law for the building of workmen's dwellings were first utilised in 1905. Since then, increasing use has been made of them every year. In accordance with the intentions of the framers of the law, annual grants were, in the first years, made only in the following cases :

(a) When slums were evacuated and the former inhabitants were not in a position to rent suitable accommodation ;

(b) When the authorities deemed it necessary to build ~~in a~~ quarter inhabited by a socially backward population — *i.e.*, a population not yet culturally developed enough to desire proper housing and not, or not yet, in a position to pay the rentals of such housing. In these cases the grants served a purpose of social improvement and benefited persons who would never have obtained any assistance from private building enterprise.

During the period from 1914 until about 1924 the provision of housing was seriously interfered with by the war and its consequences. The building industry stagnated owing to lack of building materials and a great increase in building costs.

In this period the Government had to keep the building industry in being at enormous financial sacrifice. Even so, there was an acute housing shortage for several years. That has now, however, been a matter of past history for some ten years.

From 1924 onwards, it was again possible to leave the supply of annual housing requirements to unsubsidised building — *i.e.*, mainly private builders. In some localities, however, where there was no such initiative, building was still undertaken by building associations or communes with loans from the public funds, but without any subsidies for rent. From this time onwards the Government paid particular attention to the granting of loans for the evacuation of slums and the improvement of insanitary dwellings.

In this matter, little had been done during the period of housing shortage. True, every year many unfit dwellings were demolished as a result of town-planning, but for several years no action was taken in the matter of declaring premises uninhabitable, and certainly nothing was done to provide better accommodation for slum-dwellers. As a result, housing conditions in several communes were lamentable ; many dwellings were in a state of utter disrepair and were inhabited by people who were quite unable, without subsidies, to remove to better quarters or improve their existing dwellings.

On the adoption of regulations concerning grants, the making of grants was linked up with slum clearance. In addition, the undertaking of constructional work was limited to a certain portion

of the whole building industry in order that the granting of loans should not — as in the last years of the war and thereafter — lead to an increase in building costs.

The first regulations concerning grants for slum clearance were promulgated by circular on January 5th, 1925. Under its provisions, in addition to the loans ordinarily accorded for building under the housing law, a sum of 80,000 florins was earmarked for annual grants for slum clearance. The deficit on the profit-and-loss account for buildings to be erected with this money was not to exceed 50 florins per annum. In this matter, the State and the commune were each responsible for half.

In the following years, a similar sum was earmarked every year ; since 1932, owing to the condition of the country's finances, only a smaller sum has been available. It was laid down as a pre-condition for the granting of subsidies that it must be definitely proved that a number of premises equal to the number of dwellings for which the grant was being sought had been declared uninhabitable or had been evacuated.

As a corollary to the development of slum clearance, there arose the question of the elimination of insanitary areas.

When insalubrious dwellings are situated in otherwise decent streets, it is sufficient to declare these premises uninhabitable and to build new dwellings for the evicted occupants. In the case of slums, the authorities need not take any further action. It is in the interest of the owner himself to put the property to another use, or demolish the slum and erect new buildings in its place.

In many cases, however, the dwellings which are to be declared unfit for habitation are situated in very narrow streets or blind-alley slums, while the various plots of land are so divided up that the owners are unable themselves to undertake the necessary constructional work.

In these circumstances, it is preferable to bring all the plots under one ownership, to establish a new street plan with suitable blocks of buildings, and to employ the land thus acquired for the erection of new buildings.

In general, all these operations are carried out by the commune. Private individuals are generally not in a position to obtain possession of the numberless plots into which most quarters are divided. Moreover, the planning of new streets in the place of existing ones is a matter for the communal authorities.

Further, no quarter is so bad but that it contains a few good blocks of buildings. As a general rule, however, these have to be demolished, as well as the others, because they would prevent a harmonious reconstruction of the whole. Such blocks have to be expropriated by the commune.

As a general rule, therefore, when buildings are declared unfit for habitation, all the plots of land on the estate are either purchased or expropriated by the commune.

Thereafter, new streets are planned and the roadway is made, and sewage and other work is carried out.

When all this has been done, any building land still remaining available may be utilised by the municipality for erecting its own buildings, or it can be sold or transferred on leasehold tenure (*erfpacht*) to private individuals or building associations.

Loans from the State Treasury may be granted for such work, generally known as improvement schemes (*saneeringsplan*).

Comprehensive schemes have already been presented, for instance, at Rotterdam and The Hague, while the commune of Amsterdam has for some time past been very active in this domain. In smaller communes, also — for instance, Arnhem, Leyden and Hertogenbosch, and even in much smaller communes — such schemes have now become common. In all these cases it was a matter of purchasing or expropriating all the plots in a fairly large area in which, amid the unfit dwellings, a certain number of good dwellings had also to be razed, because, as a result of a bad street lay-out or inappropriate dimensions of building blocks, it was impossible to introduce the improvements in any other way.

In this domain it will be possible to carry out extensive work in the immediate future.

Chapter III.

THE TOWN-PLANNING CLAUSES OF THE HOUSING LAW

In communes with more than ten thousand inhabitants or in which the population has, in the last five years, increased by more than one-fifth, the communal council is, unless specially exempted, bound to establish a development plan for a period not exceeding ten years, in which the destination of the land shown in the plan must be denoted either as a whole or by subdivisions. A similar obligation may also be placed on other municipalities.

These plans are subject to the approval of the provincial council (*Gedeputeerde Staten*), which for that purpose consults the housing inspector.

The communal council can also, simultaneously with a development plan or a plan for the revision of the same, lay down building regulations wherein the use to which the land is to be put, as shown on the plan, is described in further detail, while the nature of the building and the use to be made of land in the built-up area may be made subject to regulations to be fixed in accordance with the same procedure as is followed in the case of a development plan.

The development plan, in so far as it gives a broad indication of its general purpose, provides a picture of the future development of the commune, within the area covered by the plan, both on land and on water. In addition to whatever the communal council may decide to embody therein, it includes :

(a) A plan of the main lines of communication both communal and, if possible, State and provincial, and of the Polder system throughout the area of the commune shown in the plan, with exact indications of widths ;

(b) The allocation of land for public needs for the erection of dwellings and other buildings and, if necessary, for commercial and industrial premises.

In drawing up the plan, attention must be paid to traffic requirements by land and by water. In connection with roads intended for ordinary traffic coming under (a), care is taken to reserve ground with a view to future widening and the laying-out, parallel to the highway, of residential roads and the fixing of

minimum distances that must separate the debouchments of roads or approaches to residential roads or to built-up areas.

The development plan, in so far as it concerns the use to be made of subdivisions worked out later, if necessary, in special building constructions in accordance with Article 39 of the housing law, includes, besides any additional provisions the communal council may see fit to include :

(a) A complete plan of streets with exact indication of widths ;

(b) An indication of land intended for the cutting of canals or the laying-out of squares, pleasure grounds, parks, sports and playing fields, public gardens, cemeteries and for other purposes of public utility, with an exact indication of the boundaries of each ;

(c) Detailed particulars of the use to be made of land on which it is intended to build dwellings and other buildings and set up commercial or industrial premises, in which case the council may, if necessary, consider the desirability of establishing :

(1) Industrial districts—namely, districts exclusively or mainly reserved for the erection of business and industrial premises ;

(2) Mixed districts—namely, districts where permission may be given for a few industries to set up their establishments, the rest of the district being devoted to dwellings and/or other buildings and/or land utilised for public purposes ;

(3) Residential districts—namely, districts which are exclusively or mainly reserved for residential dwellings and other premises and for land utilised for public purposes, on which no industrial premises may be erected.

With regard to land exclusively or mainly reserved for residential buildings, particulars must also be given of the density, the size and category of dwellings with reference to the depth of the plots and, where the building of flats is permitted, the number of floors also.

When the councils of two or more communes desire to establish a district plan for their combined areas, they may agree to set up a committee for the preparation, execution and, if necessary, revision of the plan.

A district plan indicates, in so far as the interests of the area it covers permit, the use to be made of the land in that area. It is prepared on the same lines as a development plan.

A committee appointed to prepare and execute or to revise a district plan is bound to consider, above all, the interests of communications, trade and industry, as well as public interests, including the preservation of open spaces. As far as possible, the

following bodies are consulted through or by the committee : chambers of commerce and industry, the State and provincial waterway services, the managements of transport undertakings, the heads of industries and organisations or individuals representing public interests which might have to be safeguarded in the plan.

The main lines of communication over the whole district must be shown, with an exact indication of their width.

These lines of communication, which, in addition to ordinary roads, include railways, tramways and waterways, are divided into :

(a) Lines used for through traffic ;

(b) Lines which connect centres of population and are of more than local interest.

In connection with lines of ordinary communication falling under heading (a), land is reserved for future widening, for the making of slopes in connection with future embankments and cuttings, or for the construction of parallel roads for local traffic in connection with building and the fixing of the minimum distances that must separate the debouchments of roads, or accesses to parallel roads or to built-up areas.

In addition, provision must be made for sites, harbours, flying-grounds and other establishments which may be necessary for communications.

The plan shows, so far as the interests of the district require, the sites earmarked for industrial purposes (sites for business and industrial purposes, mining, horticulture, etc.) and those which it is intended to preserve for public purposes (natural beauty spots, such as woods, sheets of water, areas to be used for water-supply, disposal of refuse, etc.).

Chapter IV.

COMMUNAL REGULATIONS FOR BUILDING AND RESIDENCE.

A few years after the coming into force, on August 1st, 1902, of the housing law, all communes had established housing bye-laws.

In accordance with the provisions of Article 4 of the housing law, housing bye-laws must, in connection with the cases mentioned in (a), (b), and (c) above, include the following provisions :

- (a) Size and category of dwelling ; situation and size of living-rooms, stairs, passages and entrance-hall, also height from floor of lower living-rooms ;
- (b) W.C.s ;
- (c) Supply of drinking-water ;
- (d) Protection against fire ;
- (e) Protection against damp ;
- (f) Strength of building — in particular, its foundations, walls, cellars, floors, stairs, ceilings and roof ;
- (g) Disposal of sewage and garbage ;
- (h) Supply of light and air ;
- (i) Fireplaces.

In respect of existing dwellings, regulations may be laid down on all these points except point (a).

At the outset, there was a great diversity between the bye-laws adopted in the various communes. The authorities of large communes established bye-laws solely in accordance with their own views ; the smaller communes followed model or key bye-laws, prepared by experts on the subject.

For long years now it has been felt that this lack of unity is regrettable. It is, indeed, desirable, in the general interest, that the various bye-laws of different communes should not vary, except for some good reason.

With a view to overcoming these drawbacks, the Director-General of Public Health and the writer of this monograph published in 1927 a " Guide for the Preparation and Revision of Housing Bye-laws ".

Later, there appeared a briefer work, " Model Housing Bye-

laws for Smaller Communes", in which account is taken of the amendments to the housing law in 1931. According to these amendments, all housing bye-laws must be revised within two years.

In the course of this revision, many communes adopted the model housing bye-laws. In several provinces a committee of experts has, from this model bye-law, elaborated a provincial model bye-law, which has similarly been followed in many communes. The contents of the present housing bye-laws of very many small communes thus correspond in the main with this model housing bye-law.

Some of these provisions which may be of interest for the purposes of this enquiry are the following:

When a building is erected beside a road, no part of the building may extend beyond the vertical plane passing through the front building-line.

In the absence of any special provision concerning the front building-line adopted by the communal council on the basis of Article 2, paragraph 2, of the housing law, the following is laid down for front building-lines:

On roads to be newly laid out and on existing roads outside the built-up area, the front building-line is a line parallel to the axis of the road and situated at a distance of 10 metres from that axis unless the width of the road exceeds 10 metres, in which case the line is drawn at a distance of 5 metres from the edge of the road.

Measured vertically and proceeding along the front building-line, no building may be higher than the level of the road by more than two-thirds of the distance from the opposite front building-line to the said vertical plane, it being understood, however, that the height may in no case exceed 12 metres. If a building is situated at the intersection of two roads, then the greater front building-line distance can also be used for calculating height on the road with the smaller distance, but not for more than 15 metres along the line from the corner.

When a building is erected beside a road, after the completion of the building, no part of that building may lie beyond the vertical plane rising from the back building-line.

In the absence of any special provisions adopted by the communal council with regard to back building-lines on the basis of Article 2, paragraph 2, of the housing law, the back building-line is a line drawn behind the front building-line at a distance equal to one-quarter of the distance between the front building-lines in the block of buildings, unless that distance totals more than 60 metres, or the buildings do not form a whole or the block is to a large extent traversed by roads, in which case the distance from the front building-line to the back building-line must be 15 metres.

When a building is being erected beside a road, an open space, belonging to the building, must be left after its completion along the whole breadth of the back of the building and in direct connection therewith.

This open space, moreover, from the one side of the back of the building, in a direct line along the back building-line, must have at least the following dimensions :

(a) In the case of houses without an upper story, 10 metres ;

(b) In the case of houses with one or more upper stories, for each story, 3 metres more than the space specified in (a).

Every dwelling must, within the outside walls, whether on the ground floor or on an upper story, have an area of at least 25 square metres.

Every dwelling must comprise, for the exclusive use of the occupants, at least the following accommodation :

(a) An entrance porch, unless the outer door which serves as the main entrance to the dwelling opens upon a passage, shop, warehouse, workshop, shed, scullery, back-kitchen or similar outhouse ;

(b) A room with a floor area, after deduction of built-in cupboards, measured inside the walls, of at least 15 square metres and a breadth of at least 3.30 metres ;

(c) In addition to the accommodation mentioned under (b), accommodation with a floor area, measured as described under (b), of at least 7 square metres and a breadth of at least 2 metres ;

(d) A back-kitchen, scullery, laundry-room or other walled-in space which can be locked up unless, in addition to the accommodation mentioned under (b) and (c), there is also a kitchen ;

(e) A proper fireplace ;

(f) A proper place for keeping food ;

(g) A storage place for fuel, unless in the immediate proximity of the dwelling there is at its disposal a shed. In addition, each dwelling must be provided with a water-closet for the exclusive use of the inhabitants.

No room may have a floor area of less than 4 square metres measured as described above under (b).

In the case of the room specified under (b), the free height over the required minimum floor area must not be less than 2.70 metres and, above any further floor area, at least 2.20 metres.

In the case of rooms immediately below a sloping room and rooms situated above a cellar, having their floor above the ground-floor level (termed *opkamers*) the free height must be at least 2.20 metres ; this must be the height of at least half of the total

floor area and must in any case extend over an area of at least 4 square metres. The rooms must furthermore be surrounded by vertical walls to a height of at least one metre from the floor.

In the case of all other rooms, the free height over the required minimum floor area must be at least 2.40 metres, and over any additional floor area at least 2.20 metres.

Every dwelling must have access to light and air through windows situated in at least two of the outer walls.

Windows also include glass doors.

Each room must be provided with one or more vertical windows opening directly upon the open air.

In the case of rooms situated immediately below sloping roofs or not situated inside a dwelling, permission may be given to utilise a skylight that can be opened.

The above-mentioned windows must have a transparent area of at least one-eighth of the floor area, except in the case of garrets, where they must equal one-tenth of that area. The light must fall on the whole area at an angle not exceeding 45° with the horizontal.

One or more of the above-mentioned windows must be openable to such an extent that the total opening is not less than one-quarter of the whole window area.

In kitchens, back-kitchens and sculleries, the opening must be at least half of the total window area, utilisable by means of an upper window that can be opened.

Every dwelling must be provided with an adequate supply of good drinking and household water, which the inhabitants must have at their constant disposal. If not inside the house, it must be situated in a courtyard belonging to the building and at a distance of not more than 10 metres from the building.

Water must be laid on by means of a branch from the water conduit, provided some part of the dwelling is not more than 40 metres distant from a water-main or from the axis of the road under which the water-main runs. This distance must be measured by the shortest route by which the branch pipe can be taken without encountering any abnormal obstacles.

In each building, arrangements must be made to ensure that rain-water and garbage shall be disposed of as speedily as possible with a minimum of inconvenience or danger either to the occupants or to others.

The drains must be completely watertight and airtight. Furthermore, they must be of strong and durable materials and their various parts must be in proper condition and in the right positions. They must also, as far as possible, be protected from frost and must be properly accessible, and must be so arranged as to enable obstructions to be removed without difficulty and sewer-gas to escape.

Every building intended to be used as a dwelling must be

provided with at least one sink. From this sink must run an airtight and watertight outflow pipe of at least 0.04 metre internal diameter, provided with a grille and an air-trap.

Every water-closet must be provided either with a W.C. flush hole or with a lavatory pan, with airtight and watertight outflush pipes, and, if the closet is situated in the interior of the house, with a ventilating shaft.

The owner of a dwelling may not let the dwelling to or place it at the disposal of more than one family.

No resident, whether he be the head of a family or a single person, may cause or allow the dwelling to be inhabited in any way that would bring the number of families so inhabiting it to number more than one.

An exception to this rule may be allowed when it is definitely established that the size and nature of the dwelling, as also of the families that propose to live together therein, and the time during which they propose to inhabit it, would not be in any way detrimental to the interests of housing.

Apart from these provisions, the occupant, whether he be the head of a family or a single person, may not take in boarders or lodgers :

(a) In rooms which cannot be reached otherwise than through bedrooms ;

(b) In rooms the cubic content of which would be less than 10 cubic metres per occupant.

A dwelling may not be inhabited unless it is so arranged that persons over 12 of different sexes, not being husband and wife, shall not be obliged to sleep in the same room.

Apart from the provisions in (a) and (b), no dwelling may be inhabited if the cubic contents of a room in which there are one or more beds is less than 7.5 cubic metres for each sleeper over 12 years of age and 3.75 cubic metres for each child under that age.

The owner may be notified that he must carry out improvements :

(a) When, owing to disregard of the provisions of the communal housing regulations, or for other reasons, the dwelling, though not fit for habitation, could still be made so by carrying out improvements ;

(b) When a dwelling, though not unfit for habitation, is in particular need of certain specific repairs ;

(c) When the dwelling is occupied by a greater number of persons than is authorised by the local bye-laws.

The notification therefore presupposes that the housing regulations governing existing dwellings have not been complied with.

Nevertheless, non-observance of one condition alone is not sufficient to warrant a notification to the effect that improvements must be carried out ; the dwelling must be unfit for habitation.

Moreover, the law makes it possible to insist on improvements when the dwelling is " for other reasons " unfit for habitation. The meaning of this phrase is not explained in the law.

That does not mean, however, that arbitrary action can be taken. If it were permitted to declare a dwelling unfit for habitation on arbitrary grounds and then insist upon improvements, that would be equivalent to allowing the communal authorities to render more onerous at will the conditions laid down in the bye-laws for existing dwellings. That is by no means the intention of the law.

On the basis of Article 4 of the housing law, the conditions which existing dwellings are to fulfil must be specified in the bye-laws. On this point the bye-law must not contain any omissions. Requirements, therefore, which go beyond those set out in the bye-law for determining the condition of a dwelling in each particular case are inadmissible.

In point of fact, the words " for other reasons " refer to cases in which dwellings comply with the letter of the bye-law, but, owing to neglect in the matter of upkeep, bad occupancy, etc., have become unfit for habitation.

The provision under (b) leaves the authorities entirely free to judge what improvements should be made. It does not refer to the provisions of the bye-laws ; it simply lays down that the improvements must be necessary.

This expression must be taken to mean that the repairs are necessary in order to prevent the dwelling from becoming unfit for habitation.

The provision therefore applies mainly to dwellings that have been so neglected that it is necessary to take speedy action in order to save them.

The text of this provision allows ample latitude in determining what special measures are necessary in each particular case. A few restrictions are therefore absolutely necessary.

The law allows a person who receives such notification to appeal to the communal council. This possibility excludes to a large extent any arbitrary application of the law.

When a dwelling is unfit for habitation and cannot be made habitable by improvements, it is declared *unfit for habitation* by the communal council.

This decision must eventually lead to evacuation within a given period, which, by decision of the communal council, can be prolonged for a period not exceeding twelve months.

Under the housing law, the declaration of dwellings as unfit for habitation is a purely technical question and is concerned solely with the condition of the dwelling.

The only questions asked are these :

Is the dwelling unfit for habitation ?

If it is unfit, can it still be made habitable by suitable repairs and improvements ?

If the answer to the second question is in the negative, all other considerations are ignored and the dwelling is declared unfit for habitation.

No consideration is given to the number of houses available or the number of dwellings at a rent which the occupants could pay, or to the manner in which such dwellings can be provided.

A dwelling unfit for habitation which can no longer be repaired is declared unfit for habitation whatever the other circumstances of the case may be.

This rigid attitude, which is adopted as far as is possible — although during the war, when practically no building could be undertaken, it was not always possible to do so — is explained by the fact that the communal council is authorised to postpone evacuation, and above all by the fact that the authors of the law simultaneously made provision to ensure a supply of dwellings for evicted persons.

This end may be achieved on general lines by constructing working-class houses in order to expand the estate market, or by building dwellings for the particular purpose of ensuring the evacuation of slums.

Dwellings are declared unfit for habitation by decision of the communal council.

The housing law allows owners the right to appeal to the provincial council (*Gedeputeerde Staten*). This body takes a decision after hearing the inspector of housing.

In this way a too rigorous application of the provisions of the law is avoided as far as possible.

Furthermore, in cases where the provincial council failed to invalidate the declaration of unfitness for habitation even though this declaration was contrary to the law, their decisions were annulled by the Crown.

Chapter V.

TYPES OF SIMPLE DWELLINGS.

The current types of simple dwellings in the Netherlands show more or less material differences according to the character and importance of the commune in which they are situated.

In the largest towns, the multi-family houses predominate, while in towns of smaller size and in villages houses are constructed almost exclusively for single families.

At *Amsterdam* (population, 782,000), the multi-family house generally has *four* floors. Except in special cases (tenement buildings, "sky-scrapers"), the construction of a larger number of floors is not authorised. In certain suburbs where costly embankment work is not necessary, dwellings with fewer stories, and even houses for a single family, have been successfully constructed in the last few years.

At *Rotterdam* (population, 595,000) and at *The Hague* (population, 478,000), the number of floors as a rule does not exceed *three*. This is also the case in certain quarters of *Utrecht* (population, 161,000). In these communes there is a considerable proportion of single-family houses.

Houses of more than one story are also constructed at *Haarlem* (population, 130,000) and *Groningen* (population, 113,000), and in a number of smaller towns. At Haarlem, however, the single-family house still predominates. The commune which has most recently reached the figure of 100,000 inhabitants — *Eindhoven* — still consists almost entirely of houses of this type.

Apart from the above and a few smaller towns, the single-family house still predominates throughout the country. At the time of the housing census of 1919 — the only one which provided data on dwellings according to the character of the building — it was found that, except in some ten towns, approximately 95 % of the existing dwellings were single-family houses. Table I contains certain data obtained at this census.

A good dwelling must first of all have sufficient space to accommodate the persons for whom it is intended; it must be free from damp and it must afford ample access to air and light.

The *space* available for living purposes in a multi-family house is not necessarily less than that in a single-family house. Very often this space is even greater; all the rooms are on the same

Table I. — DISTRIBUTION OF DWELLINGS ACCORDING TO THE SITUATION IN THE BUILDING AT THE 1919 CENSUS.

Communes	Single-family houses	Ground-floor dwellings	Dwellings on upper floors in two-family houses	First-floor flats	Second-floor flats	Third-floor flats	Fourth-floor flats, attics, cellars, etc.	Total
Amsterdam	8,885 (6.23 %)	32,178 (22.6 %)	6,619 (4.65 %)	33,259 (23.4 %)	33,088 (23.2 %)	24,657 (17.4 %)	3,514 (2.4 %)	142,200
Rotterdam	9,569 (9 %)	29,795 (28.1 %)	13,654 (12.8 %)	26,915 (25.3 %)	23,952 (22.5 %)	2,223 (2.3 %)	159 (0.1 %)	106,267
The Hague	24,491 (31.8 %)	21,046 (27.3 %)	15,019 (19.5 %)	8,080 (10.5 %)	8,176 (10.6 %)	44	97 (0.1 %)	76,953
Utrecht	19,201 (65.8 %)	4,806 (16.5 %)	4,501 (15.4 %)	582 (2 %)	84 (0.3 %)	4	3	29,181
Haarlem	10,991 (66.3 %)	2,677 (16.2 %)	2,855 (17.2 %)	13 (0.1 %)	13 (0.1 %)	—	—	16,549
Groningen	9,664 (51.3 %)	4,468 (23.7 %)	3,953 (21 %)	585 (3.1 %)	120 (0.6 %)	—	72 (0.4 %)	18,862
Total	82,801	94,970	46,601	69,434	65,433	26,928	3,845	390,012
Total for all other communes	914,131 (92.36 %)	36,250 (3.65 %)	27,364 (2.75 %)	8,607 (0.87 %)	2,779 (0.28 %)	398 (0.04 %)	459 (0.05 %)	989,988
Total for the whole country	996,932 (72.3 %)	131,220 (9.5 %)	73,965 (5.35 %)	78,041 (5.65 %)	68,212 (4.95 %)	27,326 (2 %)	4,304	1,380,000

floor, with the convenience that they can be reached without going upstairs or downstairs. Nevertheless, the *system* of multi-family houses — though this is not yet the case in the Netherlands — leads in the long run to the completest possible exploitation of building plots, and hence to the greatest possible limitation of the space allotted to each dwelling.

Damp, the most serious defect in a dwelling, is harmful to the health of the occupants and to their household goods ; it must therefore be prevented by the adoption of suitable technical measures at the time of construction. In this respect, a multi-family house presents no inferiority ; possibly, indeed, houses occupied by a single family, particularly those situated in country districts, are, as a rule, more exposed to damp. Of course, basement dwellings suffer most in this respect, but their inferiority need not be demonstrated even to the most ardent supporter of multi-family houses.

Dwellings must also have abundant *light*. It is indispensable as a psychological stimulant, and develops keenness and vitality. A well-lighted dwelling has the advantage, from the hygienic point of view, that it is easier to keep clean, because dust, etc., is more readily noticed. It is, above all, important to allow the sun's rays to enter to the greatest possible extent, owing to their bactericidal properties.

Abroad, the construction of blocks of flats possibly restricts to some extent the *penetration of light* ; in this respect, the Dutch multi-family houses are not, as a rule, inferior to the single-family houses. An exception should perhaps be made as regards the type of dwellings with alcoves in use at Rotterdam. As the construction reaches a depth of 13 or 14 metres, the light does not penetrate sufficiently into the alcove, and this, in my opinion, constitutes a far from negligible inferiority in view of the above-mentioned properties of light.

Further, it cannot be too often repeated that light is essential to children. Rickets, which may impair their health for life, and the campaign against which constitutes a grave national problem, is caused by a lack of ultra-violet rays and defective nourishment.

The children of families who occupy multi-family houses suffer particularly from the lack of ultra-violet rays. They have less access to the open air for lack of a garden, and the light entering the dwelling has been largely deprived of the necessary rays by the window-panes, for the latter absorb a large part of the ultra-violet rays. It is therefore evident that, in blocks of flats, children are handicapped as regards susceptibility to rickets.

In the interests of hygiene, it is incontestably necessary to ensure adequate *ventilation* of dwellings. Here, too, the difficulty lies elsewhere ; even when a dwelling can be easily ventilated, its occupants do not necessarily receive sufficient outside air.

In this connection, multi-family houses are in a position of

marked inferiority, less on account of the dwellings themselves than owing to the system of construction, which deprives the occupants of the upper floors of fresh air. Having no garden, they are obliged to go for a walk if they want to go out. Children have no opportunity for the exercise essential for the development of their muscles and lungs in the open air ; infants will very often not be exposed to the outer air, because the parents find it too much trouble to take the perambulator up and down frequently. As regards adults, there is also a psychological factor, since looking after a garden of one's own may exercise a good moral influence. The occupant of a flat will have a greater tendency to go out ; he is deprived of the attraction offered by looking after his own property, which can be of great assistance in the campaign against alcoholism, for example.

Various solutions have been proposed to remedy the grave defect offered in this respect by multi-family houses. There is, in the first place, the jointly owned garden, available for the children of the different families. Nevertheless, this intercourse between children of different ages and classes, and generally not under supervision, offers numerous drawbacks. In the opinion of some, it must, in fact, be regarded as definitely undesirable. In any case, the drawback remains that the garden and the dwelling are at a distance from one another. Another solution, consisting in creating roof-gardens, has the same drawbacks. A roof-garden for several families can only be regarded as a makeshift.

It is also recommended that terraces and balconies should be constructed so as to give each dwelling a small amount of open-air space. Apart from the fact that this space is so limited that its practical utility seems extremely doubtful, the idea has a serious drawback—namely, that such balconies take away the light of the flats on the lower floors ; they make the ventilation of these dwellings more difficult, and, on the other hand, lead to the dropping of dust, grit and other refuse. As far as adults are concerned, an endeavour is being made to remedy the absence of a garden by giving them an allotment outside the town. This solution is only of slight utility, however, for there is no direct contact between the man and his garden, and the great distance will always prevent regular cultivation.

The improvements made in the multi-family houses cannot therefore remedy their drawbacks completely. The single-family house with its little garden, belonging exclusively to the occupants, which is of inestimable value to a child, therefore possesses, in my opinion, a great superiority over a dwelling situated in a block of flats.

A building containing a number of dwellings has thicker walls than a single-family house. In very hot weather, these walls become a veritable reservoir of heat (they can accumulate a quantity of heat equal to 2,000 times their air volume). Even when the outer

air becomes cooler at night or after a storm, the walls continue to heat the flats. The cooling properties of the earth, the salutary influence of which makes itself felt in the small, single-family house, practically ceases to have any influence even on the second floor. Moreover, numerous internal sources of heat in a multi-family house (kitchens, etc.), and the accumulation of a considerable number of persons, conduce to high temperatures.

Although living conditions in the large towns of our country are far from resembling those of Berlin, it is nevertheless true that upper-floor flats (under flat roofs, even if heat-proofed) are exposed during the hot weather to temperatures so high as to be seriously inconvenient to the occupants. These temperatures produce enervation and have a particularly depressing effect on the sick and on persons of weak constitution.

The question naturally arises whether multi-family houses, in view of the number of occupants, do not promote the spread of contagious diseases, and particularly tuberculosis.

Although it is not possible to demonstrate irrefutably the connection between housing and tuberculosis, we feel that a certain relationship must exist. It is difficult to give proper care to a patient in a bad and close dwelling; and, although the dwellings in a multi-family house are not necessarily in bad condition or close, yet I am inclined to believe that it must be more difficult to give proper care to a patient in such dwellings than in a house belonging to his family where a sunny room, which is easy to ventilate, is readily available.

The danger of infection is obviously increased by promiscuity. The disease primarily threatens children. It is well known that adults are most exposed to infection when they are in permanent contact with patients suffering from open tuberculosis — for example, when they are tending such patients. Children, too, are much more exposed to the danger of infection. When they live in multi-family houses, their susceptibility may be increased by the fact that they are too seldom in the open air.

Multi-family houses, with their common staircases and entrances, assuredly contribute to the spread of tuberculosis, even if we cannot prove this by statistical data.

After studying the differences which exist between single-family houses and multi-family houses from the point of view of health, there are other factors which militate against this last type of dwelling.

The relations which are established between the different families having a common staircase are often considered to be a moral danger. In my opinion this fear is not unfounded; common staircases, entrances, etc., are places which might be described as semi-public. They are not under police supervision and yet do not belong to any one head of a family. Constant association with older children and adolescents may certainly give rise to relations

which are often undesirable. Moreover, these common spaces constantly give occasion for quarrels, which may have all kinds of disagreeable and even disastrous consequences to family life.

In a block containing several dwellings, family life itself can never be as intimate as in a house occupied by a single family. Mention has already been made of the possible inducement to the occupants of a multi-family house to go out, to visit public-houses, etc. The occupant of a flat does not possess a home of the kind which the Dutch need as much as the British ; he can distinctly hear the noises in other flats and on the stairs ; he feels deprived of his freedom of movement because sound-proofing is often defective and conversations conducted in a slightly raised voice can be overheard. At a time like the present, when collective life is so intense — we need only mention entertainments, cafés, and the numerous meetings and courses which play so large a part in modern life — it is particularly important that each family should in every respect be able to assert its unity and possess a home where it can feel this unity and solidarity ; for family life exercises a preponderating influence on the formation of character, and consequently on the moral standard of a nation.

Lastly, multi-family houses with flats that offer only temporary quarters encourage frequent moves and the migration of the population. When this form of dwelling is the only one commonly available, a workman is practically precluded from becoming the owner of his home or creating a family property, whereas the system of single-family houses gives him every facility in this respect. The fact of being the owner of his dwelling exercises a beneficial influence on the occupants, for it encourages thrift, cleanliness and the love of home ; and the opportunity of becoming a house-owner is of definite social and political importance.

In *Amsterdam*, the four-floor block, which has been in existence for some time past, has recently become the most current type ; such blocks are built by private persons as well as by building associations.

This type contains four flats, situated one above the other, with a common staircase. The flats consist of a front living-room, which, under the regulations in force, must have a minimum area of 16 square metres, while at the back there are two bedrooms and a kitchen ; in addition, the flat contains a W.C. and a number of wall-cupboards.

Up to the present, it has been compulsory in *Amsterdam* for the staircase to give directly on to the street, in order that it should be sufficiently lighted. This is not absolutely essential, and the building bye-laws now allow exceptions.

If such an exception is granted, it is possible to add to the three upper flats a front bedroom, which brings the number of bedrooms in these dwellings up to three.

This mode of construction has the effect, however, that all the

flats in one block are practically identical, so that they are tenanted by households all of medium size.

Recently, there has been a tendency to abandon this system, for families are not all of the same size.

The Government, in the various terms of its subsidies, has always insisted on each dwelling having separate bedrooms for the parents and the children of different sexes over 12 years of age. Thus, every flat would have to have three bedrooms.

This, however, has been found unnecessary. For some households three bedrooms are not enough, while for others — and these are more numerous — they are too many.

As stated in Chapter VI, it was not until the 1930 census that data were obtained for the first time on the size of families and the sleeping accommodation at their disposal.

In Amsterdam, occupied dwellings were distributed as follows in this respect :

- 40.8 % with *one* bedroom, of which 36.2 % were adequate and 4.6 % inadequate ;
- 37.7 % with *two* bedrooms, of which 34.5 % were adequate and 3.2 % inadequate ;
- 16.6 % with *three* bedrooms ;
- 3.6 % with *four* bedrooms ;
- 1.3 % with *more than four* bedrooms.

It would therefore appear that the requirements of the population of Amsterdam are as follows :

- 36 % of dwellings with one bedroom ;
- 39 % of dwellings with two bedrooms ;
- 20 % of dwellings with three bedrooms ;
- 3.5 % of dwellings with four bedrooms ;
- 1.5 % of dwellings with five or more bedrooms.

These proportions do not exist at present, however, so that they cannot serve as a basis for a building programme. When new building plans are drawn up, the present requirement is, therefore, that, out of 100 dwellings, 50 should have three bedrooms and 35 should have two bedrooms. The rest need only have one bedroom, although, of course, a flat can have more than three bedrooms.

When the types of flat vary in this way, it is possible to construct a greater number of dwellings in the same block than if this contained only three-bedroom flats.

The consequence is that the average cubic space per flat can be materially reduced without any deterioration in housing conditions.

In the Netherlands, unlike many other countries, a characteristic feature of flats is that the latter always occupy the whole area of the house, so that they have windows both in front and at the back and can therefore obtain light and air.

Any flat, however small, can thus be completely ventilated. This is a fact which should be borne in mind when judging dwelling conditions in large towns in the Netherlands.

In addition, each flat is separated from the common staircase by a closed hall.

Until recently, blocks constructed by private persons as well as by building companies usually included above the fourth floor an attic floor, which often contained three additional bedrooms and three box-rooms for the three upper flats. The occupants of the flats can reach these bedrooms by the common staircase ; they are, however, separated from the wall of the staircase by a closed passage.

There has recently been an increasing tendency to abandon this mode of construction. Instead of attics, the most modern houses have a basement of limited height, which cannot be utilised for habitation.

These basements are usually arranged so that they can be used for storage by the occupants of the four flats above them ; bicycles, perambulators, fuel, etc., can be kept there.

This new arrangement has also led to another modification. The free space between the buildings is no longer divided into railed-off gardens reserved for the occupants of the ground floor. As these buildings no longer have ground floors situated at the same level as the space enclosed by the building, the latter is arranged as an enclosed pleasure-ground, a playground for children or for similar purposes.

Single-family houses are of different types according to the district.

The principal categories of such houses are terraces of villas of the kind constructed in towns, and detached houses, which in the country districts are gradually giving place to actual agricultural labourers' dwellings, generally comprising premises for rural production.

According to local custom, a further distinction can be made between the type having a separate living-room and kitchen and the type having a living-room in which the cooking is done, the so-called kitchen-living-room.

SINGLE-FAMILY HOUSES.

Last century the custom was, particularly in small houses, to have all the living-rooms on the ground floor.

The space available at the top of the house consisted of an attic, which was not subdivided into rooms.

Larger houses had, besides the ground floor, an upper floor and above it an attic ; small dwellings almost invariably consisted of one living-room on the ground floor, with a number of box-beds,

a small kitchen, and, above, an attic, which was used as a store-room.

This attic, which was covered by a tiled roof without any interior lining and exposed to the wind and cold, was used in large families as a bedroom for the older boys.

At the beginning of the present century, the construction of such houses was still encouraged by subsidies under the nousing law.

When it became the custom to provide tiled roofs with a boarded lining, the attic became more habitable and it was possible to instal one or more bedrooms in it.

This extension of the habitable area in the attic made it possible to do away with the box-beds and replace them by bedrooms on the upper floor.

The small, single-family houses constructed in the last few years are all of this type.

AGRICULTURAL LABOURERS' HOUSES.

The types of agricultural labourers' dwellings vary widely according to the requirements of the various categories of this section of the population.

It includes both agricultural labourers proper, who are entirely in the service of an employer, and the "crofter" (*keuterboer*), who only works from time to time for an employer.

The former has little time after his regular work to exploit a small rural holding. The latter, on the other hand, obtains the greater part of his livelihood from the produce of his land.

There are many intermediate categories between these two extreme groups. On the basis of these differences, the type of agricultural labourer's dwelling varies between the small labourer's cottage and the miniature farm.

Owing to the great diversity of conditions of rural life, it is impossible to describe a type of dwelling which is characteristic for the whole country.

The most usual type is either a kitchen-living-room with a separate scullery, or a living-room and a kitchen with separate sleeping accommodation for the parents and the children of each sex.

These requirements are thus the same as for an ordinary workman's dwelling. An agricultural labourer's dwelling also contains a section, of varying size, intended for farming operations, and separated from the dwelling-house by a fireproof wall which extends up to the roof. This separation is necessary both to avoid the danger of fire and to protect the dwelling-house from the effluvia of the cowsheds.

The part reserved for farm-work must comprise the necessary

cowsheds, and also space for storing crops and agricultural implements.

Live-stock usually consists only of one or two cows, a few goats and pigs, and some poultry.

The older dwellings of agricultural labourers are, as a rule, very primitive, and consist only of a kitchen-living-room with two or three box-beds and an entrance hall on the ground floor. The attic is not provided with sleeping accommodation, but is used for the storage of crops. There are no stairs ; the attic is reached by means of a ladder from the store-room.

The more modern agricultural labourers' dwellings usually consist of a living-room and kitchen on the ground floor, and one or two bedrooms, the other bedrooms being in the attic.

Chapter VI.

DETERMINATION OF THE NUMBER OF DWELLINGS REQUIRED.

The Netherlands are in a favourable situation, inasmuch as the existing number of dwellings has for some years past been more than sufficient to meet requirements.

During the last years of the world war, the stagnation in the building trade, owing to scarcity of materials and the sharp rise in prices and wages, led to a serious housing shortage.

In October 1919, a housing census was held in 692 out of the 1,118 Netherlands communes, comprising 92½ % of the population. The census showed that, in these communes, 60,841 families had no dwelling of their own and lived with other families, while 5,221 families were living in dwellings declared to be unfit for habitation, or emergency dwellings; 8,512 dwellings were unoccupied.

These figures show that, in the communes covered by the census, there was a shortage of 57,550 dwellings. For the country as a whole, the number may be estimated at 60,000.

Since then a very large number of dwellings have been built, so that the shortage of accommodation has gradually been remedied.

On the occasion of the census of December 31st, 1930, a housing census was held. It was found that, throughout the country, there were 1,863,644 dwellings, of which 49,829, or 2.65 %, were unoccupied.

Whereas in October 1919 there was a definite shortage of about 60,000 dwellings, at the end of 1930 there was a reserve of 50,000 dwellings.

As the percentage of unoccupied dwellings on December 31st, 1930, shows that there was a sufficient number of dwellings, it may be deduced that, during the period in question, the increase in their number exceeded by 110,000 units the increase in requirements. Table II shows that, if we put at 20,000 units the increase in the number of dwellings between the end of October 1919 and December 31st, 1920, there was an increase of 445,000 dwellings during the period of eleven years considered.

Requirements have therefore increased by about 335,000 units, or about 30,000 per annum.

The number of dwellings which disappear each year owing

to demolition, reconstruction, change of use, etc., may be estimated in normal years at about 8,000 or 9,000. This figure was approximately reached in the period 1928-1931; thereafter, it declined owing to the depression.

We may therefore put at 38,000 or 39,000 (say, 40,000 in round numbers) the number of dwellings to be constructed each year. The actual construction has materially exceeded this figure each year.

Table II. — CONSTRUCTION OF DWELLINGS SINCE 1921.

	Number of dwellings built	Number of dwellings withdrawn from use as such	Net increase in the number of dwellings
1921	40,364	1,895	38,469
1922	45,496	2,035	43,461
1923	43,132	2,629	40,503
1924	46,712	3,616	43,096
1925	47,190	4,477	42,713
1926	50,698	6,335	44,363
1927	51,622	6,932	44,690
1928	49,138	8,446	40,692
1929	48,865	7,711	41,154
1930	52,588	8,057	44,531
1931	52,092	9,022	43,070
1932	43,493	6,192	37,301
1933	46,967	5,341	46,626
1934	55,294	5,344	49,950

For the period December 31st, 1930, to December 31st, 1934, the net increase in the number of existing dwellings should therefore have amounted to 120,000. In reality, it reached a figure of about 172,000, or a margin of over 50,000 dwellings. As on December 31st, 1930, about 50,000 dwellings were vacant, the number of unoccupied dwellings at the end of 1934 must have exceeded 100,000.

Since then, the economic crisis which broke out at the end of 1931, and has since become more and more aggravated, has had the effect of still further reducing the demand for dwellings from persons able to pay for them.

The reduction in incomes has obliged a number of families to give up their own flats and take lodgings. The demand for dwellings is therefore lower than that shown by the above figures.

In some large towns where an exact record is kept of vacant dwellings, it would seem that the increase materially exceeds the estimate based on the increase in the number of existing dwellings and of requirements. Hence the number of vacant dwellings in the country as a whole must be materially in excess of 100,000. There can therefore be no question of a housing shortage; on the

contrary, in many communes there is over-production. In the large towns in which precise statistics are kept, the percentage of vacant dwellings of all kinds seems more than adequate.

From the point of view of quantity, the present accommodation therefore seems more than sufficient. This does not mean, however, that, from the point of view of quality, these dwellings satisfy every requirement. On the contrary, the housing conditions still leave a great deal to be desired in several respects.

In the first place, a number of dwellings are still in such a condition that they should really be considered unfit for habitation, and will therefore have to be declared uninhabitable sooner or later.

At the end of 1924, I collected data on this subject, from which I estimated the number of such dwellings in the country as a whole at 60,000.

During the ten years which have elapsed since then, 68,000 dwellings have disappeared on account of demolition, reconstruction, evacuation after being declared uninhabitable, change of use, etc.

These dwellings were certainly not all bad. About half of them were still in good condition but had to disappear for other reasons.

During the same period, 17,000 dwellings were condemned and 14,000 of these were evacuated in consequence. To this should be added the slums which disappeared without being condemned.

On the basis of these figures, it may be taken that, since 1924, about 30,000 dwellings in bad condition have been eliminated, so that at the present time there are still about 30,000 of those which were condemned in 1924.

To this number must be added those dwellings which, in 1924, were still in a satisfactory condition but which have since deteriorated to such an extent that they must now be placed in the category of slums. It is not possible to estimate their number.

Nevertheless, a large proportion of these dwellings are at present vacant. Owing to the numerous unoccupied dwellings and the general fall in rents, many flats of inferior standard have fallen empty and will be difficult to let. The experience acquired in the communes in which exact data as to the number of vacant dwellings have been obtained confirms this observation.

The number of dwellings of inferior standard which are still occupied therefore does not attain alarming proportions.

It is true that, owing to the prolonged economic depression, certain families are obliged to go and live with others or to continue to occupy a dwelling the rent of which actually exceeds their resources. The decline in rents has not been able to keep pace with the general decline in incomes.

Hence, in the majority of communes it is not only considered necessary to build dwellings to replace the slums, but there is also an urgent demand for cheap workmen's dwellings.

Chapter VII.

STATISTICAL DATA.

In the Netherlands, a census of the population is held every ten years, when particulars of dwellings are also collected. As already stated, the last census took place on December 31st, 1930.

In the following tables various statistics have been inserted on the basis of the results of the ten-yearly censuses, and particularly that of 1930.

Table III gives a number of figures relating to the area of the country and the density of the population since 1830.

Table IV shows the population and its increase since 1830.

Table V shows the population by groups of communes at the censuses of 1909, 1920 and 1930.

Table VI shows the number of persons living in families or alone, on the basis of the results of the last five censuses and for 1930 by groups of communes.

At the 1930 census, a count was taken for the first time of occupied and vacant dwellings, the term "dwelling" being interpreted on the basis of a definition drawn up with the assistance of the Housing Service. This definition is as follows :

"A dwelling is taken to mean any building or any part of a building which is arranged in such a manner as to be considered a separate habitation — *i.e.*, any building or part of a building which, in practice, provides shelter for a single family or a single person, even if a part of such dwelling is sublet to one or more families, or to lodgers, or boarders. A part of a building which the owner of the latter has let separately to a family or person (living separately) is considered to be a separate dwelling even if it originally formed a single dwelling together with another part of the building."

Table VII shows the number of dwellings, of which a census was taken in 1930, together with the number of occupants.

The housing statistics available are not sufficient to permit of a comparison of the situation at different periods. The earliest

Table III. — AREA AND DENSITY OF POPULATION.

	Number of inhabitants per		Increase in density (January 1st, 1830 = 100)
	Square kilometre	Geographical square league	
January 1st, 1830 . .	80.2	4,400	100.—
January 1st, 1840 . .	87.8	4,816	109.5
November 19th, 1849 .	93.8	5,147	117.—
December 31st, 1859 .	100.8	5,529	125.7
December 31st, 1869 .	108.9	5,974	135.8
December 31st, 1879 .	121.6	6,672	151.6
December 31st, 1889 .	138.6	7,608	172.8
December 31st, 1899 .	154.3	8,467	192.4
December 31st, 1909 .	179.9	9,860	224.—
December 31st, 1920 .	210.6	11,554	262.6
December 31st, 1930 .	243.7	13,371	303.9

Total area : 32,565 square kilometres, or 593.5 geographical square leagues.

Table IV. — POPULATION ACCORDING TO CENSUSES.

		Average yearly increase	
		Numbers	%
January 1st, 1830 . .	2,613,487		
January 1st, 1840 . .	2,860,559	24,707	0.95
November 19th, 1849 .	3,056,879	19,632	0.69
December 31st, 1859 .	3,309,128	25,225	0.88
December 31st, 1869 .	3,579,529	27,040	0.82
December 31st, 1879 .	4,012,693	43,316	1.21
December 31st, 1889 .	4,511,415	49,872	1.24
December 31st, 1899 .	5,104,137	59,272	1.31
December 31st, 1909 .	5,858,175	75,404	1.48
December 31st, 1920 .	6,865,314	91,558	1.56
December 31st, 1930 .	7,935,565	107,025	1.56

Increase of Population in the Periods between Two Censuses.

	Increase owing to excess of live-births over deaths	Increase owing to migration	Total increase
December 31st, 1849 .	202,540	— 6,220	196,320
December 31st, 1859 .	262,007	— 9,758	252,249
December 31st, 1869 .	345,730	— 75,329	270,401
December 31st, 1879 .	448,639	— 15,475	433,164
December 31st, 1889 .	565,692	— 66,970	498,722
December 31st, 1899 .	675,297	— 82,575	592,722
December 31st, 1909 .	839,048	— 85,010	754,038
December 31st, 1920 .	961,695	+ 45,444	1,007,139
December 31st, 1930 .	1,057,891	+ 12,360	1,070,251

Table V. — POPULATION OF THE NETHERLANDS BY GROUPS OF COMMUNES.

Groups of communes	December 31st. 1909	December 31st. 1920	December 31st. 1930
Over 100,000 inhabitants :			
Population	1,557,614	1,881,714	2,161,741
Average yearly increase since previous census	26,720 (2.07 %)	29,464 (1.89 %)	28,003 (1.49 %)
50,000—100,000 inhabitants :			
Population	513,694	632,047	794,275
Average yearly increase since previous census	9,369 (2.22 %)	10,759 (2.09 %)	16,223 (2.56 %)
20,000—50,000 inhabitants :			
Population	602,780	746,909	909,519
Average yearly increase since previous census	11,044 (2.24 %)	13,103 (2.18 %)	16,261 (2.19 %)
5,000—20,000 inhabitants :			
Population	1,765,192	2,048,328	2,385,414
Average yearly increase since previous census	19,237 (1.23 %)	25,740 (1.46 %)	33,709 (1.65 %)
5,000 inhabitants or under :			
Population	1,418,669	1,556,148	1,684,616
Average yearly increase since previous census	9,027 (0.64 %)	12,498 (0.88 %)	12,847 (0.83 %)
Whole country :			
Population	5,858,175	6,865,314	7,935,565
Average yearly increase since previous census	75,404 (1.48 %)	91,558 (1.56 %)	107,025 (1.56 %)

statistics are those of the decennial censuses of the population ; data on housing were first collected at the census of 1899. It was also collected in 1909. In 1920, the data collected were not worked up.

In taking the census, particulars are shown of the *occupied* dwellings, according to the number of rooms and number of occupants. Parts of dwellings let to persons living separately (furnished rooms) are shown as separate dwellings. They should accordingly be deducted from the number of dwellings counted. On the other hand, empty dwellings, which were not counted, should be added. In 1930, the above definition of dwelling, established in consultation with myself, was employed and empty dwellings were counted for the first time.

By comparison with other data, an attempt has also been made, for the years 1889 and 1909 also, to determine approximately the number of dwellings. The results are as follows :

	December 31st, 1889.	December 31st, 1909 .	December 31st, 1930
Actual number of dwellings, approx.	1,076,000	1,253,000	1,863,644
Total demand for dwellings — i.e., number of dwellings occupied, approx.	1,042,000	1,229,000	1,813,815
Number of unoccupied dwellings, approx.	34,000	34,000	49,829
Percentage of unoccupied dwellings, approx.	3.34 %	2.8 %	2.67 %

At the census of 1930, data were also collected for establishing statistics of dwellings and families. On this occasion, a different definition was employed. The change of method is explained by the difference in the object of the enquiry, which was to determine the floor area at the disposal of each family for dwelling purposes.

In the statistics of dwellings and families, the "dwelling" was taken to be the rooms for dwelling purposes at the disposal of a "family" or of a "person living alone". The expression

Table VI.

Year of census	Number of persons belonging to families	Number of persons living alone	Number of persons in institutions	Total
1879	3,873,551 (96.3 %)	65,515 (1.6 %)	82,626 (2.1 %)	4,021,692
1899	4,931,431 (96.1 %)	89,195 (1.7 %)	114,922 (2.2 %)	5,135,548
1909	5,633,492 (95.7 %)	125,475 (2.1 %)	130,357 (2.2 %)	5,889,324
1920	6,604,517 (95.6 %)	153,670 (2.3 %)	146,979 (2.1 %)	6,905,166
1930	7,609,451 (95.2 %)	218,456 (2.7 %)	170,272 (2.1 %)	7,998,179
Communes of :				
Over 100,000 inhabitants	2,048,202 (94.1 %)	93,439 (4.3 %)	33,877 (1.6 %)	2,175,518
50,000—100,000 inhabitants	760,150 (94.7 %)	22,167 (2.7 %)	20,656 (2.6 %)	802,973
20,000—50,000 inhabitants	872,436 (94.9 %)	21,994 (2.4 %)	24,556 (2.7 %)	918,986
5,000—20,000 inhabitants	2,297,643 (95.5 %)	49,149 (2.1 %)	57,695 (2.4 %)	2,404,487
5,000 inhabitants or under	1,631,020 (96.1 %)	31,707 (1.9 %)	33,488 (2.0 %)	1,696,215
Total 1930	7,609,451 (95.2 %)	218,456 (2.7 %)	170,272 (2.1 %)	7,998,179

Table VII. — DWELLINGS AND POPULATION AT 1930 CENSUS.

Communes	Number of dwellings		% un-occupied	Regular residential population of dwellings	Average number of persons per dwelling
	Total	Un-occupied			
Amsterdam . . .	199,661	7,045	3.52	738,498	3.70
Rotterdam . . .	144,446	3,748	2.59	569,877	3.95
The Hague . . .	130,428	4,320	3.31	429,427	3.28
Utrecht . . .	36,957	1,234	3.33	151,298	4.09
Haarlem . . .	30,945	757	2.45	116,774	3.78
Groningen . . .	24,947	434	1.74	98,514	3.94
Communes of :					
50,000—100,000 .	180,591	4,799	2.66	769,899	4.38
20,000—50,000 .	208,722	4,591	2.20	876,932	4.30
10,000—20,000 .	266,312	6,988	2.62	1,135,274	4.36
5,000—10,000 .	265,044	6,253	2.36	1,168,637	4.52
2,000—5,000 . .	268,957	6,216	2.32	1,178,449	4.49
1,000—2,000 . .	78,854	2,333	2.96	339,600	4.44
1,000 inhabit. or less . . .	28,351	1,135	4.01	115,714	4.08
Whole country . .	1,863,644	49,829	2.67	7,688,903	4.24

“ room for dwelling purposes ” also covers verandas used as separate rooms (for example, as sleeping accommodation), bedrooms, alcoves, kitchens, linen-rooms, dressing-rooms, garrets and other spaces within the dwelling, and also storage cellars, lofts, stables, etc., if used as living-rooms or as bedrooms for a family or a person living alone. When this is not the case, such premises, verandas, etc., are not counted as rooms.

For the census purposes a family is held to consist of two or more persons who, by the fact of living together, constitute a household. A boarder is counted as a member of the family, unless living separately in one or more rooms. Servants living with the family are counted with the latter.

A “ person living alone ” is a person who does not belong to the family and lives by himself in a dwelling or part of a dwelling or separately in one or more rooms.

The tables hereunder are taken from these “ statistics of dwellings and families ”.

Table VIII shows the number of occupied dwellings grouped according to the number of rooms and subdivided by groups of communes.

Table IX gives the number of occupied dwellings grouped according to the number of rooms and the number of occupants.

Table X shows the number of occupied dwellings grouped according to the number of occupants per room and subdivided by groups of communes.

Table VIII.

Commune	Number of dwellings occupied, with :							Total
	One room	Two rooms	Three rooms	Four rooms	Five rooms	Six rooms	Seven rooms or over	
Amsterdam	21,876 (10.1 %)	19,144 (8.9 %)	37,586 (17.4 %)	56,788 (26.3 %)	46,471 (21.5 %)	18,296 (8.5 %)	15,218 (7.1 %)	215,379
Rotterdam	7,840 (5.3 %)	18,812 (12.7 %)	23,159 (15.8 %)	31,890 (21.7 %)	34,913 (23.7 %)	17,009 (11.5 %)	13,644 (9.3 %)	147,287
The Hague	14,595 (11.2 %)	10,232 (7.9 %)	12,860 (9.9 %)	22,480 (17.3 %)	33,077 (25.5 %)	16,193 (12.5 %)	20,270 (15.6 %)	129,707
Utrecht	2,039 (5.1 %)	3,571 (9 %)	4,928 (12.4 %)	6,987 (17.6 %)	8,012 (20.2 %)	6,232 (15.7 %)	7,972 (20 %)	39,741
Haarlem	1,111 (3.5 %)	2,202 (6.9 %)	3,693 (11.6 %)	5,610 (17.7 %)	6,049 (20.2 %)	5,884 (18.5 %)	6,848 (21.6 %)	31,757
Groningen	1,806 (6.8 %)	4,361 (16.4 %)	4,400 (16.6 %)	4,366 (16.4 %)	4,381 (16.4 %)	3,101 (11.7 %)	4,139 (15.7 %)	26,554
Communes of :								
50,000 to 100,000 inhabitants	5,716 (3.1 %)	17,096 (9.2 %)	23,658 (12.6 %)	31,291 (16.8 %)	36,322 (19.5 %)	34,564 (18.5 %)	37,682 (20.2 %)	186,329
20,000 to 50,000 inhabitants	9,213 (4.3 %)	23,071 (10.9 %)	28,803 (13.6 %)	34,653 (16.4 %)	41,411 (19.6 %)	36,853 (17.4 %)	37,779 (17.8 %)	211,783
10,000 to 20,000 inhabitants	22,287 (8.4 %)	44,514 (16.8 %)	40,838 (15.4 %)	40,289 (15.1 %)	42,311 (15.9 %)	33,313 (12.5 %)	41,700 (15.8 %)	265,252
5,000 to 10,000 inhabitants	22,555 (8.6 %)	50,309 (19.2 %)	49,847 (19 %)	45,714 (17.5 %)	39,844 (15.2 %)	26,163 (10 %)	27,585 (10.6 %)	262,017
2,000 to 5,000 inhabitants	22,579 (8.5 %)	56,325 (21.2 %)	54,790 (20.6 %)	46,689 (17.6 %)	35,994 (13.6 %)	24,496 (9.2 %)	24,363 (9.2 %)	265,236
1,000 to 2,000 inhabitants	5,979 (7.7 %)	17,157 (22.2 %)	17,135 (22.2 %)	13,897 (18 %)	9,761 (12.6 %)	6,243 (8.1 %)	6,932 (9 %)	77,104
500 to 1,000 inhabitants	1,670 (6.8 %)	5,843 (23.6 %)	5,796 (23.4 %)	4,502 (18.2 %)	2,928 (11.8 %)	1,883 (7.6 %)	2,120 (8.6 %)	24,742
500 inhabitants and under	121 (4.5 %)	598 (22.4 %)	673 (25.2 %)	483 (18 %)	331 (12.4 %)	209 (7.8 %)	264 (9.8 %)	2,679
Total	139,387 (7.4 %)	273,235 (14.5 %)	308,166 (16.4 %)	345,639 (18.4 %)	342,165 (18.2 %)	230,439 (12.1 %)	246,536 (13.1 %)	1,885,567

Table IX.

	Number of dwellings occupied with							Total
	One room	Two rooms	Three rooms	Four rooms	Five rooms	Six rooms	Seven rooms or more	
Occupied per room by :								
One person or under	65,911	111,931	158,882	226,956	256,199	186,917	224,053	1,230,849 (65.3 %)
More than one to two persons	24,062	90,906	110,951	102,503	80,551	42,297	22,320	473,590 (25.1 %)
More than two to three persons	17,232	44,559	31,161	15,260	5,362	1,222	163	114,959 (6.1 %)
More than three to four persons	12,687	17,715	6,408	900	53	3	—	37,766 (2 %)
More than four to five persons	8,039	6,075	725	18	—	—	—	14,857 (0.8 %)
More than five to six persons	4,986	1,695	37	1	—	—	—	6,719 (0.35 %)
Over six persons	6,470	354	2	1	—	—	—	6,827 (0.35 %)
Total	139,387	273,235	308,166	345,639	342,165	230,439	246,536	1,885,567

Table X.

Commune	Dwellings occupied, each room by :							Total
	One person or under	More than one to two persons	More than two to three persons	More than three to four persons	More than four to five persons	More than five to six persons	More than six persons	
Amsterdam	166,915	41,684	5,185	1,071	310	121	93	215,379
Rotterdam	104,221	34,851	6,057	1,466	443	149	100	147,287
The Hague	110,225	17,294	1,703	337	91	33	24	129,707
Utrecht	31,243	7,061	1,060	257	69	28	23	39,741
Haarlem	26,445	4,692	501	95	12	7	5	31,757
Groningen	18,996	5,958	1,116	306	101	30	47	26,554
Communes of :								
50,000 to 100,000 inhabitants	138,700	40,152	5,719	1,243	311	114	90	186,329
20,000 to 50,000 inhabitants	149,923	47,592	9,090	2,788	1,152	567	671	211,783
10,000 to 20,000 inhabitants	158,620	71,637	20,767	7,583	3,350	1,566	1,729	265,252
5,000 to 10,000 inhabitants	137,148	82,633	25,825	9,232	3,743	1,670	1,766	262,017
2,000 to 5,000 inhabitants	134,763	85,355	27,578	9,872	4,008	1,902	1,758	265,236
1,000 to 2,000 inhabitants	39,107	25,592	7,842	2,746	987	411	419	77,104
500 to 1,000 inhabitants	12,995	8,245	2,302	720	267	114	99	24,742
500 or under	1,548	844	214	50	13	7	3	2,679
Total	1,230,849	473,590	114,959	37,766	14,857	6,719	6,827	1,885,567

Table XI gives the number of occupied dwellings grouped according to the number of rooms and showing the total number of rooms and occupants.

Table XII contains a survey of the number of dwellings consisting respectively of three occupied rooms or more and four occupied rooms or more, both in relation to the total number of dwellings. Since the censuses of 1889 and 1909, there would appear to have been an appreciable increase in the percentage of both categories of dwellings. These data were not collected at the 1920 census.

The increase since 1909 was to be expected, as the new dwellings almost all consist of three or more rooms.

Table XIII contains a survey of dwellings, with one, two, three or four or more bedrooms. For dwellings with one or two bedrooms, enquiries were directed towards ascertaining whether they were sufficiently large to enable the families concerned to give children of different sexes, of 14 or over, separate bedrooms. As regards dwellings with three bedrooms or more, the floor area available was regarded as adequate.

The following are considered inadequate :

(a) Dwellings with one bedroom occupied by two unmarried persons of different sexes over 14 years of age ;

(b) Dwellings with one bedroom occupied by a married couple and by one or more persons over 14 years of age ;

(c) Dwellings with two bedrooms occupied by a married couple and persons over 14 years of age of different sexes.

It has since been agreed that the limit of 14 years was too high. In laying down minimum requirements for new dwellings, the Government decided that separate bedrooms were necessary for children of different sexes over 12 years of age.

The figures in Table XIII show that, in the country as a whole, 204,723 dwellings, or 10.9 % of the total existing dwellings, have not sufficient bedrooms for the families occupying them.

That does not mean, however, that it is necessary to build 204,723 new dwellings in the country as a whole in order to remedy the lack in question. A large part of the 122,519 families established in the dwellings referred to in (a) and (b) who have not got adequate bedroom accommodation might be housed in the 82,204 dwellings mentioned under (c), if these could be evacuated. A number of the households occupying these last-named dwellings might, in their turn, be accommodated in more roomy dwellings which are unoccupied (on December 31st, 1930, there were 50,000 empty dwellings).

It is perfectly clear that, on December 31st, 1930, there were 204,723 occupied dwellings in which the number of bedrooms was inadequate. In actual fact, in view of the high age-limit specified, the shortage was even greater. It would be possible

Table XI.

Dwellings occupied with (rooms)	Number of dwellings	%	Number of rooms	Number of inhabitants	Per dwelling	Per room
1	139,387	7.4	139,387	338,442	2.44	2.44
2	273,235	14.4	546,470	939,908	3.44	1.72
3	308,166	16.4	924,498	1,207,283	3.90	1.30
4	345,639	18.4	1,382,556	1,426,729	4.12	1.03
5	342,165	18.2	1,710,825	1,501,886	4.40	0.88
6	230,439	12.2	1,382,634	1,072,582	4.62	0.77
7	113,039	6.0	791,273	536,210	4.76	0.68
8 and over	133,497	7.0	± 1,122,357 ¹	665,863	4.98	± 0.58
Total. . .	1,885,567	100	± 8,000,000	7,688,903	4.06	± 0.96

Table XII.

Census on December 31st of the year	Number of dwellings	Number of dwellings with three or more rooms occupied	%	Number of dwellings with four or more rooms occupied	%
<i>Communes of Amsterdam, Rotterdam, The Hague, and Utrecht.</i>					
1899.	257,286	131,877	51.5	81,478	31.7
1909.	320,755	205,851	64.5	137,334	42.8
1930.	532,114	434,005	81.5	355,472	66.8
<i>Other communes of 20,000 inhabitants and over.</i>					
1899.	154,436	73,253	47.5	42,064	27.2
1909.	216,610	129,734	60.0	81,173	37.6
1930.	456,423	391,847	86.0	331,293	72.5
<i>Communes of 10,000 to 20,000 inhabitants.</i>					
1899.	130,937	43,450	33.0	24,776	18.9
1909.	151,185	63,427	42.0	37,819	25.0
1930.	265,252	198,451	75.0	157,613	59.5
<i>Communes of 10,000 inhabitants and under.</i>					
1899.	546,077	197,864	36.0	106,743	19.6
1909.	578,705	260,937	45.0	149,898	26.0
1930.	631,778	448,642	71.0	320,401	51.0
<i>The Kingdom.</i>					
1899.	1,088,736	446,444	41.0	255,061	23.4
1909.	1,267,255	659,949	52.0	406,224	32.1
1930.	1,885,567	1,472,945	78.0	1,164,779	62.0

¹ The signs ± mean approximate figures.

Table XIII.

Communes	Dwellings with one bedroom				Dwellings with two bedrooms				Dwellings with more than two bedrooms					
	Adequate		Inadequate		Adequate		Inadequate		Three		Four		Over four	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Amsterdam	78,081	36.2	9,883	4.6	74,180	34.5	6,950	3.2	35,581	16.6	7,785	3.6	2,919	1.3
Rotterdam	40,910	27.8	8,274	5.6	55,057	37.5	6,637	4.5	27,465	18.6	6,580	4.4	2,364	1.6
The Hague	42,700	32.9	2,275	1.8	42,457	32.7	2,019	1.6	27,109	20.9	8,498	6.5	4,649	3.6
Utrecht	10,524	26.5	1,645	4.1	12,601	31.7	1,282	3.2	9,175	23.1	3,003	7.6	1,511	3.8
Haarlem	7,878	24.8	1,071	3.4	10,457	32.9	748	2.4	7,896	24.8	2,552	8.1	1,155	3.6
Groningen	7,352	27.7	1,225	4.6	8,702	32.8	881	3.3	5,709	21.5	1,868	7.0	817	3.1
Communes with :														
50,000 to 100,000 inhabitants	41,924	22.5	6,339	3.4	55,909	30.0	5,298	2.8	51,039	27.4	16,543	8.9	9,277	5.0
20,000 to 50,000 inhabitants	46,473	21.9	9,609	4.5	66,077	31.2	6,970	3.3	57,524	27.2	17,185	8.1	7,948	3.8
10,000 to 20,000 inhabitants	63,432	23.9	19,969	7.5	79,383	29.9	12,254	4.6	59,852	22.6	20,528	7.7	9,834	3.7
5,000 to 10,000 inhabitants	65,140	24.9	23,718	9.1	79,521	30.3	15,500	5.9	53,451	20.4	17,275	6.6	7,412	2.8
2,000 to 5,000 inhabitants	68,751	25.9	27,119	10.2	80,082	30.2	16,993	6.4	49,747	18.7	16,111	6.1	6,433	2.4
1,000 to 2,000 inhabitants	20,530	26.6	8,503	11.1	22,982	29.8	4,945	6.4	13,733	17.8	4,590	5.9	1,821	2.4
500 to 1,000 inhabitants	6,856	27.7	2,733	11.1	7,447	30.2	1,570	6.4	4,119	16.9	1,400	6.1	617	2.5
500 inhabitants and under	700	26.1	239	8.9	833	31.1	157	5.9	497	18.6	187	7.0	66	2.4
The Kingdom	501,331	26.6	122,519	6.5	595,688	31.6	82,204	4.4	402,897	21.3	124,105	6.6	56,823	3.0

however, to remedy this situation for the most part by removals to other dwellings.

There would be no objection from the point of view of the housing situation in general, since the position is practically the same in the various communes.

The reason, in my view, that such removals have not yet taken place is that the families concerned cannot afford to rent a larger apartment or do not wish to make any sacrifice in that respect.

The data in Table XIII throw light also, for the different categories of dwellings, on existing requirements.

Occupied dwellings may be grouped as follows :

26.6 % for which one bedroom is sufficient ;

6.5 % with one bedroom, whereas at least two bedrooms are required ;

31.6 % for which two bedrooms are adequate ;

4.4 % with two bedrooms, whereas at least three bedrooms are required ;

21.3 % with three bedrooms ;

6.6 % with four bedrooms ;

.3 % with more than four bedrooms.

It is clear that, on an average, the population requires :

26.6 % of dwellings with one bedroom ;

38.1 % of dwellings with two bedrooms ;

25.7 % of dwellings with three bedrooms ;

9.6 % of dwellings with more than three bedrooms.

These figures reveal the reduction in the average number of members per family.

As noted elsewhere, such figures cannot be taken as a basis for a building programme, as the existing dwellings do not yet comply with requirements.

Tables XIV to XVI give data relating to the composition of families.

Table XIV shows the size of the families by groups of communes.

Table XV gives the number of families subdivided according to the number of children.

Table XVI gives the number of " large " families by groups of communes. By " large " families is meant here those with more than 5 children.

For the Kingdom as a whole, such households represent 8 % of the total number. In some communes the proportion is higher, in others lower, and sometimes indeed far below 8 %. In four of the six large communes, it is not even as high as 5 %.

These large households require dwellings exceeding the normal size. Many of the families concerned, moreover, can afford the expense themselves.

Table XIV.

Commune	Households consisting of								
	Two persons	Three persons	Four persons	Five persons	Six persons	Seven persons	Eight persons	Nine persons	Ten persons and over
Amsterdam	46,918	45,826	37,610	22,978	12,973	7,173	4,066	2,302	2,487
Rotterdam	29,907	32,352	27,560	18,373	11,363	6,705	4,001	2,296	2,838
The Hague	28,348	25,173	20,150	12,730	7,588	4,305	2,522	1,441	1,685
Utrecht	8,151	8,160	6,868	4,615	2,893	1,849	1,133	689	886
Haarlem	7,267	6,950	5,867	3,641	2,155	1,262	705	424	480
Groningen	5,420	5,553	5,146	3,257	1,934	1,078	607	326	393
Communes of:									
50,000 to 100,000 inhabitants	34,793	37,356	33,247	23,897	16,118	10,489	6,405	4,177	5,555
20,000 to 50,000 inhabitants	39,551	43,198	39,197	27,908	18,450	11,673	7,340	4,708	5,886
10,000 to 20,000 inhabitants	47,957	50,587	46,568	35,316	24,503	16,542	10,650	6,878	8,830
5,000 to 10,000 inhabitants	44,726	47,444	44,867	34,934	25,854	18,045	12,230	7,889	10,570
2,000 to 5,000 inhabitants	46,874	48,333	44,610	34,904	25,459	17,780	12,313	8,133	11,057
1,000 to 2,000 inhabitants	13,975	14,019	12,548	9,949	7,348	5,166	3,643	2,340	3,094
500 to 1,000 inhabitants	4,848	4,643	4,091	3,153	2,223	1,548	1,004	660	823
500 inhabitants and under	584	507	459	333	234	149	91	47	85
Total	359,319	370,101	328,788	235,988	159,095	103,764	66,710	42,310	54,669

Table XV.

Number of households with :		%
No children	399,788	23.25
One child	390,283	22.8
Two children	338,882	19.7
Three children	220,846	12.8
Four children	141,811	8.2
Five children	90,274	5.25
Six children	57,573	3.35
Seven children	36,188	2.1
Eight children	21,623	1.26
Nine children	12,060	0.7
Ten children	6,298	0.35
Eleven children	3,044	0.15
Twelve children or more	2,074	0.1
Total	1,720,744	100

Table XVI. — NUMBER OF LARGE HOUSEHOLDS.

Commune	Number of households		%
	Total	With more than five children	
Amsterdam	182,333	7,628	4.2
Rotterdam	135,395	8,009	6.4
The Hague	103,942	4,912	4.7
Utrecht	35,244	2,356	6.7
Haarlem	28,751	1,304	4.5
Groningen	23,714	1,041	4.4
Communes of :			
50,000 to 100,000 inhabitants	172,037	13,575	7.9
20,000 to 50,000 inhabitants .	197,911	15,330	7.7
10,000 to 20,000 inhabitants .	247,831	22,085	8.9
5,000 to 10,000 inhabitants .	246,559	25,669	10.4
2,000 to 5,000 inhabitants . .	249,463	26,950	10.8
1,000 to 2,000 inhabitants . .	72,082	7,701	10.7
500 to 1,000 inhabitants . . .	22,993	2,115	9.2
500 inhabitants and under . .	2,489	185	7.4
The Kingdom	1,720,744	138,860	8.0

The number of large families in need of financial assistance from the authorities for the payment of rent appears to be quite small in the larger towns..

The building of an adequate number of dwellings for large families no doubt requires to be studied, but does not constitute a social problem of such gravity that its solution need be despaired

of on grounds of expense. It is sufficient to provide each year building programmes for a number of dwellings of a size suitable for large families.

Lastly, Tables XVII-XX inclusive contain certain data relating to the cost of living at Amsterdam and The Hague.

Similar statistics are not available for the Kingdom as a whole.

Table XVII. — AMSTERDAM: INDEX NUMBERS OF COST OF LIVING OF WORKING-CLASS FAMILIES BASED ON THE STYLE OF LIVING FOR THE PERIOD OCTOBER 1ST, 1923, TO SEPTEMBER 30TH, 1924.

Date	Period 1911-1913 = 100		October 1st, 1923, to September 30th, 1924 = 100	
	Cost of living	Cost of food	Cost of living	Cost of food
1911-1913	100	100		
1917 :				
February to March	132.3	136.9		
August.	141.8	147.8		
1918 :				
February to March	165.0	160.8		
August to Sept. . .	183.0	185.1		
November to Dec.	177.0	181.2		
1919 : March	183.8	189.4		
June.	194.8	203.9		
September	193.1	200.9		
December	204.8	214.9		
1920 : March	213.7	216.9		
June.	218.8	224.9		
September	228.3	235.0		
December	221.6	239.7		
1921 : March	209.8	227.3		
June.	207.9	229.3		
September	199.2	211.7		
December	190.4	201.1		
1922 : March	191.9	203.2		
June.	186.8	192.2		
September	174.8	168.7		
December	176.3	170.9		
1923 : March	172.5	166.1		
June.	173.5	170.3		
September	173.1	169.4		
December	177.6	178.7		
1924 : March	179.1	180.7	100	100
June.	173.3	169.2		
September	176.3	173.3		
December	180.8	181.3		
1925 : March	179.3	177.4		
June.	179.1	179.2		
September	178.7	175.5		
December	177.2	171.6		
1926 : March	169.0	163.2	95.7	93.0
June.	170.9	168.1	96.8	95.8
September	164.2	153.4	93.0	87.4
December	167.8	160.6	95.0	91.5

Table XVII (concluded). — AMSTERDAM : INDEX NUMBERS OF COST OF LIVING OF WORKING-CLASS FAMILIES BASED ON THE STYLE OF LIVING FOR THE PERIOD OCTOBER 1ST, 1923, TO SEPTEMBER 30TH, 1924.

Date	Period 1911-1913 = 100		October 1st, 1923, to September 30th, 1924 = 100	
	Cost of living	Cost of food	Cost of living	Cost of food
1927 : March	166.4	158.7	94.2	90.4
June	167.4	163.0	94.8	92.9
September	167.2	163.0	94.7	92.9
December	169.5	167.4	96.0	95.2
1928 : March	169.2	166.4	95.8	94.8
June	170.4	169.4	96.5	96.5
September	169.2	165.8	95.8	94.5
December	167.9	164.1	95.1	93.5
1929 : March	168.5	163.1	95.4	92.6
June	169.0	165.3	95.7	94.2
September	166.7	159.5	94.4	90.9
December	167.4	161.6	94.8	92.1
1930 : March	162.8	152.0	92.2	86.6
June	162.1	151.6	91.8	86.4
September	162.1	152.5	91.8	86.9
December	156.6	144.8	88.7	82.5
1931 : March	154.3	139.9	87.4	79.7
June	153.5	140.6	86.9	80.1
September	151.2	136.9	85.6	78.0
December	145.2	125.5	82.2	71.5
1932 : March	141.1	118.8	79.9	67.7
June	140.9	119.2	79.8	67.9
September	141.1	119.7	79.9	68.2
December	140.2	119.2	79.4	68.0
1933 : March	137.9	115.5	78.1	65.8
June	137.4	116.5	77.8	66.3
September	139.5	121.1	79.0	69.0
December	142.5	128.3	80.7	73.1
1934 : March	141.5	125.5	80.1	71.5
June	139.9	123.1	79.2	70.2
September	140.1	123.6	79.3	70.4
December	138.8	122.3	78.6	69.7

Table XVIII. — THE HAGUE : INDEX NUMBERS OF THE COST OF LIVING OF WORKING-CLASS FAMILIES BASED ON THE STYLE OF LIVING IN 1921

Period	1913-14 = 100		1921 = 100	
	Food and drink	Total cost of living	Food and drink	Total cost of living
August 1913-August 1914	100	100		
1920 : January	212.8	213.9	102.2	107.1
September	218.3	217.5	104.8	108.9
1921	208.3	199.8	100	100
1922 : March	192.7	184.0	92.5	92.1
June	183.8	178.8	88.2	89.5
September	156.1	165.5	75.0	82.8
December	158.2	166.3	76.0	83.2

Table XVIII (concluded). — THE HAGUE : INDEX NUMBERS OF THE COST OF LIVING OF WORKING-CLASS FAMILIES BASED ON THE STYLE OF LIVING IN 1921.

Period	1913-14 = 100		1921 = 100	
	Food and drink	Total cost of living	Food and drink	Total cost of living
1923 : March	156.1	163.9	75.0	82.1
June	170.3	169.6	81.8	84.9
September	158.2	163.3	76.0	81.7
December	161.7	164.3	77.6	82.2
1924 : March	171.8	169.4	82.5	84.8
June	170.1	167.9	81.7	84.0
September	168.4	166.7	80.8	83.5
December	171.3	168.0	82.3	84.1
1925 : March	167.0	165.9	80.2	83.0
June	180.7	171.2	86.7	85.7
September	169.3	165.5	81.3	82.9
December	165.1	163.5	79.3	81.8
1926 : March	159.6	160.7	76.6	80.4
June	166.8	163.4	80.1	81.8
September	153.2	157.1	73.5	78.7
December	157.7	159.4	75.7	79.8
1927 : March	158.9	159.2	76.3	79.7
June	160.4	159.4	77.0	79.8
September	159.4	159.2	76.5	79.7
December	165.6	164.3	79.5	82.2
1928 : March	169.9	165.9	81.6	83.0
June	165.3	163.7	79.4	81.9
September	158.7	161.2	76.2	80.7
December	157.4	160.4	75.5	80.3
1929 : March	158.4	161.2	76.0	80.7
June	150.6	157.4	72.3	78.7
September	155.1	159.8	74.5	80.0
December	152.2	158.2	73.1	79.2
1930 : March	145.1	155.0	69.7	77.6
June	143.4	153.1	68.8	76.6
September	149.1	155.2	71.6	77.7
December	143.7	151.7	69.0	75.9
1931 : March	139.2	148.1	66.8	74.1
June	143.0	148.7	68.7	74.4
September	130.4	142.5	62.6	71.3
December	127.3	140.4	61.0	70.2
1932 : March	119.2	136.0	57.2	68.0
June	112.1	131.8	53.8	66.0
September	111.9	131.5	53.7	65.8
December	117.1	133.9	56.2	67.0
1933 : March	114.5	132.5	55.0	66.3
June	114.3	132.2	54.9	66.1
September	117.1	133.6	56.2	66.9
December	124.4	136.8	59.7	68.4
1934 : March	124.0	136.9	59.5	68.5
June	121.0	134.7	58.1	67.4
September	121.4	135.0	58.3	67.5
December	118.8	133.4	57.0	66.7

Table XIX. — AMSTERDAM: COST OF LIVING OF WORKING-CLASS FAMILIES AS COMPARED WITH THE STYLE OF LIVING AND PRICE-LEVEL FROM OCTOBER 1ST, 1923, TO SEPTEMBER 30TH, 1924.

Year	Food	Clothing and boots and shoes	Other expenses	Rent	Total	X. 1923-IX. 1924 = 100
	Florins	Florins	Florins	Florins	Florins	
I.X.1923 to 30.IX.1924	4.93	0.97 ^s	3.63 ^s	1.47 ^s	11.01 ^s	100
1925. . . .	4.51	1.05	2.47 ^s	1.40 ^s	9.44	86
1926. . . .	4.53	0.87 ^s	3.54	1.53 ^s	10.4 ^s	95
1927. . . .	4.57	0.85	3.47	1.53 ^s	10.45 ^s	95
1928. . . .	4.67	0.89	3.43	1.56 ^s	10.55 ^s	96
1929. . . .	4.55 ^s	0.87 ^s	3.45 ^s	1.58 ^s	10.47	95
1930. . . .	4.22	0.79 ^s	3.42	1.61	10.04 ^s	92
1931. . . .	3.81	0.66	3.30 ^s	1.64 ^s	9.42	86
1932. . . .	3.34	0.56	3.22	1.66	8.78	80
1933. . . .	3.38	0.52 ^s	3.12 ^s	1.66	8.69	79
1934. . . .	3.47	0.52	3.07	1.66	8.72	79

Amounts which would have been spent per unit of consumption per week had the same articles been purchased during the year October 1st, 1923, to September 30th, 1924. For the purpose of calculating units of consumption, a man is taken as a unit; a woman as 0.9; children under 1 year, 0.15; children from 1 to 2 years, 0.2; from 2 to 3 years, 0.3; and so on, 0.05 being added for each year.

Table XX. — THE HAGUE: COST OF LIVING OF WORKING-CLASS FAMILIES AS COMPARED WITH THE STYLE OF LIVING AND PRICE-LEVEL IN 1921.

Year	Food	Clothing and boots and shoes	Other expenses	Rent	Total	1913-14 = 100
	Florins	Florins	Florins	Florins	Florins	
XII.1920	6.29	1.68	4.66 ^s	0.99	13.62 ^s	215.7
1921. . . .	6.03	1.62	3.71	1.10 ^s	12.46 ^s	199.8
1925. . . .	4.94	1.03	3.08	1.35	10.40	166.5
1926. . . .	4.61	0.98	3.00	1.35	9.94	160.2
1927. . . .	4.66	0.96	3.12	1.38	10.12	160.5
1928. . . .	4.71	1.03	2.95	1.46	10.15	162.8
1929. . . .	4.46	1.01	2.98	1.48	9.93	159.2
1930. . . .	4.20 ^s	0.94	2.93 ^s	1.51	9.59	153.8
1931. . . .	3.90 ^s	0.76	2.85 ^s	1.52	9.04	144.9
1932. . . .	3.33	0.66 ^s	2.80	1.55 ^s	8.32	133.3
1933. . . .	3.40 ^s	0.63	2.78	1.52 ^s	8.34	133.8
1934. . . .	3.51	0.64	2.76	1.51	8.42	135.0

Chapter VIII.

OTHER STATISTICS.

It is not possible to show by statistics the influence exercised by housing in a general way on the state of health. The enquiries undertaken in the matter provide no conclusive results.

They merely show that, in the worst dwellings, the worst health conditions and the highest death rate are found. They provide no evidence that these facts are a consequence of the housing conditions.

Table XXI gives the figures for births and deaths for the Kingdom as a whole.

Table XXII gives the infant mortality per 1,000 children of each year of age, and Table XXIII deaths from tuberculosis.

The appreciable decline in the death-rate figures is undoubtedly due to the considerable improvement in living conditions attained since the beginning of this century. It is, too, connected with the rise in the standard of living and the improved social position of the working-class.

Statistics of the death-rate in the different quarters of a town are available only for the City of Amsterdam.

Certain data relating to this question appear in Table XXIV. For purposes of comparison, a column has been added giving some idea of the financial means of the population in the different quarters.

This table shows also that the death rate is lower the better the financial position and therefore the better the housing conditions.

The death rate figures in the large towns are lower than for the Kingdom as a whole. This phenomenon has no connection with housing conditions, but is due to the fact that the health services are better in the larger cities than in the country. These data will be found in Table XXV.

Table XXI. — SURVEY OF BIRTHS, DEATHS AND MARRIAGES.

Year	Number of live births per thousand inhabitants per annum	Number of deaths under 1 year per thousand live births	Total number of deaths per thousand inhabitants per annum	Number of marriages per thousand inhabitants per annum
1850-1859	33.84	195.0	25.49	
1860-1869	35.23	197.0	24.80	
1870-1879	36.24	202.5	24.49	
1880-1889	34.68	182.8	21.27	
1890-1899	32.73	158.9	18.67	
1900-1909	31.03	130.0	15.65	
1910-1919	26.79	95.2	13.37	
1920-1923	26.88	68.2	11.07	8.85
1924-1929	23.72	58.3	9.90	7.62
1930	23.10	50.9	9.10	7.98
1931	22.20	49.6	9.60	7.45
1932	22.00	46.3	9.00	6.88
1933	20.80	43.9	8.80	7.23
1934	20.70	42.6	8.40	7.28

Table XXII. — CHILD MORTALITY PER THOUSAND AT EACH YEAR OF AGE.

Year	Under 1 year	1 year	2 years	3 years	4 years	5 years
1922	77.3	17.77	7.33	3.91	2.89	2.19
1923	66.2	15.96	6.00	3.81	2.72	2.22
1924	60.6	12.43	5.31	3.14	3.00	2.00
1925	58.4	14.11	5.65	3.81	3.04	2.50
1926	61.1	14.82	6.11	4.04	3.03	2.37
1927	58.7	14.45	6.09	3.85	3.16	2.54
1928	52.0	11.59	5.32	3.58	2.60	2.34
1929	59.0	13.54	5.77	3.71	2.93	2.34

Table XXIII. — DEATHS FROM TUBERCULOSIS PER 10,000 OF THE AVERAGE POPULATION ACCORDING TO SEX.

Year	Tuberculosis of the lungs		Total number of deaths		Grand total
	Male	Female	Male	Female	
1901-1905	13.77	13.31	19.57	18.52	19.04
1906-1910	12.35	12.85	16.68	16.92	16.80
1911-1915	10.67	11.43	14.19	14.87	14.53
1916-1920	12.39	14.18	16.57	18.30	17.44
1921-1925	7.41	8.84	10.33	11.68	11.00
1926-1930	5.87	6.97	8.12	9.24	8.68

Table XXIV. — MORTALITY AT AMSTERDAM DURING VARIOUS PERIODS IN THE DIFFERENT DISTRICTS OF THE TOWN.

	Deaths per thousand inhabitants		Deaths under 1 year per thousand live-births : period 1929-1931	Deaths from tuberculosis of the lungs per 10,000 inhabitants, 1920-21	Wealth in 1915 according to the percentage of incomes over 2,200 florins
	Period 1908-1911	Period 1920-1921			
Centre of the old town	13.5	12.5	41.5	14.2	5.9
Eastern islands	14.0	10.8	53.9	9.1	0.6
Western islands	14.2	13.4	56.6	9.6	1.3
Jordaan	16.0	12.4	58.4	12.7	1.4
Jodenbuurt	12.3	10.9	50.8	12.1	3.8
Grachten	12.5	16.2	38.5	12.3	18.2
New quarters between :					
Y and Hugo de Grootgracht	10.6	8.3	40.8	11.7	2.4
Boerenwetering and Amstel	10.6	9.2	32.1	8.6	11.0
Amstel and Y	8.2	9.2	29.5	9.8	11.3
Hugo de Grootgracht and Vondelpark	9.0	9.8	39.3	11.5	12.3
Vondelpark and Boerenwetering	8.1	8.4	22.6	7.0	31.8
To the north of Y	9.9	6.7	43.5	11.8	0.3
Whole town	12.5	10.5	36.5	11.1	
The Kingdom	14.2	11.5	53.1	10.2	

Table XXV. — DEATHS SINCE 1880 PER ANNUM PER THOUSAND INHABITANTS IN THE FIVE PRINCIPAL COMMUNES AND THE KINGDOM.

Year	Amsterdam	Rotterdam	The Hague	Utrecht	Gröningen	The five communes	The Kingdom
Yearly average :							
1880-1889. . .	24.1	23.7	22.1	24.7	21.5	23.6	21.3
1890-1899. . .	18.4	19.8	17.9	19.7	17.8	18.7	18.6
1900-1909. . .	14.2	14.7	14.1	14.6	14.0	14.4	15.6
1911-1920. . .	12.0	11.6	11.4	12.3	12.5	11.8	13.2
1921-1925. . .	9.5	8.6	9.3	9.7	9.7	9.2	10.4
1926-1930. . .	9.0	8.5	9.5	9.0	9.4	9.0	9.9
1911	12.2	11.8	12.5	13.1	12.8	12.2	14.5
1912	11.0	10.9	10.7	11.1	10.9	10.9	12.3
1913	11.1	10.5	11.0	11.2	13.1	11.0	12.3
1914	11.3	10.5	10.7	12.0	11.2	11.0	12.4
1915	11.2	10.7	11.1	10.9	11.1	11.0	12.5
1916	11.9	11.5	11.1	12.7	12.4	11.7	12.9
1917	12.2	11.6	11.2	12.1	12.9	11.8	13.1
1918	15.5	15.4	13.4	15.8	17.5	15.2	17.1
1919	12.4	12.7	11.9	11.9	11.9	12.3	13.2
1920	10.8	10.5	10.2	11.9	11.1	10.8	11.9
1921	10.1	9.2	9.5	9.8	10.4	9.7	11.1
1922	10.4	9.3	9.7	10.7	10.9	10.0	11.4
1923	9.1	8.3	9.4	9.2	9.3	9.0	9.9
1924	8.8	8.0	9.0	9.1	8.8	8.6	9.5
1925	9.1	8.3	9.1	9.7	9.0	8.9	9.8
1926	8.9	8.2	9.0	8.5	9.0	8.7	9.8
1927	9.1	8.8	9.7	9.3	9.6	9.2	10.2
1928	8.9	8.5	9.5	9.1	9.0	8.9	9.6
1929	10.0	9.5	10.4	9.9	10.4	9.9	10.7
1930	8.4	7.8	8.9	8.1	8.8	8.3	9.1
1931	8.9	8.3	9.7	8.8	9.6	8.9	9.6
1932	8.1	7.9	9.5	9.0	8.8	8.5	9.0
1933	8.6	7.5	9.1	8.9	8.9	8.4	8.7

Chapter IX.

STATE AND COMMUNAL SUPERVISION.

State supervision of public health consists of the following :

- (a) Enquiries into the state of public health and, if necessary, suggestions and facilities for improving it ;
- (b) Application of the laws and regulations enacted in connection with such enquiries, if no other legislative regulations exist.

A Public Health Council is responsible for giving the Government advice to assist it in the safeguarding of public health.

State supervision is carried out through chief inspectors and public health inspectors.

There are at present five inspectorates :

(1) The service for supervising the enforcement of legislative provisions relating to infectious diseases, of the law governing the exercise of the medical profession, of the law on medical assistance to the poor, of the law on burials, of the law concerning the legal protection of the diplomas granted for the care of the sick, of the law concerning the application of measures of protection against infectious diseases and measures of disinfection, of the regulations relating to infant hygiene and to measures for coping with tuberculosis and venereal disease (medical inspection).

(2) The service for supervising the enforcement of the legislative provisions on the exercise of pharmacy and of the law on merchandise ; this service also deals with questions concerning hygiene of the soil, air and water (pharmaceutical inspection).

(3) The service for supervising the enforcement of the law on the inspection of meat (veterinary inspection).

(4) The service for supervising the enforcement of the legislative provisions concerning housing (housing inspection).

(5) The service for measures against alcoholic excess (inspection of alcoholic beverages).

The chief inspectors are appointed with competence over the Kingdom as a whole, and the inspectors subordinate to them with competence over part of the territory.

The service referred to under (4) is responsible for supervising the enforcement of the housing law.

Certain articles of this law confer specific duties on the inspectors. The provincial councils, which frequently have to give a verdict on decisions of communal authorities in the enforcement of the housing law, invariably hear the competent inspector before so doing.

Article 13 of the housing law provides that in every commune one or more officials shall be appointed to supervise the enforcement of the provisions of the regulations for the inspection of buildings and of the other legal provisions concerning housing. Such officials may possess competence over one or more communes. The last is the case when several small communes conclude an agreement to establish joint arrangements for such supervision.

For purposes of supervision, every communal administration must have at its disposal an official with adequate training who can advise it on all measures that it may be necessary to take regarding housing.

To ensure that supervision in regard to the building and total or partial modernisation of dwellings shall be effective, it must be carried out both before the granting of the building permit and afterwards, when building is in progress. This is laid down in the regulations for the inspection of buildings.

According to these regulations, supervision covers the improvement of defective housing conditions, kind of dwelling, etc.

At the same time, the division of the country into groups of communes engaging an official jointly is not as simple as might be thought at first sight. In the first place, all the communes, with a few exceptions, possessed such an official, even before the law on housing had instituted proper supervision. The work was often entrusted to a carpenter or a small contractor who, for a very small sum, acted as adviser to the communes on building matters. Such supervision clearly does not meet the requirements of the law and is accordingly not adequate. It is difficult, however, to prove this sufficiently plainly to induce the commune to dismiss the person concerned and appoint a more competent official.

A second difficulty is that it is extremely difficult to prevail upon a number of communes to collaborate and appoint the same person. They frequently refuse to give up the services of an official living in the commune or already in service. As a general rule, negotiations for the formation of a group have meant that one or more of the richer communes have appointed an official themselves, so that the group has been broken up and it has no longer been possible to combine the others into a suitable unit.

As a result of these difficulties, the organisation of supervision in the smaller communes has not yet progressed as far as it should have in the interests of housing.

On the amendment of the housing law in 1931, the Crown, in

ERRATUM

Page 59. — *Instead of* “ 20,000 dwellings built by associations and communes since the housing law came into force”, *read* “ 200,000 dwellings ”.

order to provide for cases in which a group of small communes might find it necessary to establish a joint organisation for the inspection of buildings and dwellings, was authorised to appoint a central commune responsible for directing such supervision.

It is hoped in this way to overcome the smaller communes' objections to collaboration.

In view of the economic depression and the serious financial difficulties of many communes, however, the higher authorities must exercise great caution before taking action to improve the organisation of such supervision.

Supervision is required, not only over buildings and dwellings, but also over living conditions.

Since the entry into force of the housing law, associations and communes have built upwards of 20,000 dwellings, all of which are let.

The method of letting is of great importance. The interests of housing are not served only by building a large quantity of dwellings and letting them at low rentals ; if there is to be a real improvement in housing, they must be kept for those who need them, and it must be ensured that the occupants make the best possible use of them.

Accordingly, it is important not only to give preference to certain categories of intending tenants, but also quite definitely to refuse certain other groups of applicants.

The larger communes and a number of important building associations have engaged for these various duties specially trained women officials. Housing inspectresses play an important part in the administration of the property belonging to the communes and building associations.

There are in the Netherlands different social training institutions in the towns which prepare girls for these duties.

The inspectress's duties were defined as follows in a report which appeared a few years ago :

“ In the first place, the inspectress must visit persons desirous of renting a dwelling and state which persons, in her opinion, should be considered first for a new dwelling, by reason of the way in which their present dwelling is kept and of their conduct, or on the grounds that they need a new dwelling. That is undoubtedly a difficult task, though undoubtedly a very congenial one for women with a social vocation.

“ The letting of the dwelling, however, is only part of their task. When the dwelling is occupied, the inspectress must keep constantly in touch with the tenants. She must see that the rent is paid regularly, and, if she encounters ill will, must not hesitate to take severe measures and force the tenant to fulfil his undertakings. Again, she must also help and assist tenants, as far as she is able, and advise them on social problems.”

Chapter X.

CONSTRUCTION.

Outside walls. — Usually brick ; the common type (*Waalsteen*) are 20.8 to 22 cm. long, 10.1 to 10.7 cm. wide, 5.2 to 5.6 cm. thick. Minimum thickness of outside walls (without internal rendering) : blocks of flats at Amsterdam : outside wall supporting floors : as far as the highest floor, thickness : one brick and a half (about 32 cm.) ; above that, one brick (about 21 cm.). Non-support outside walls : as far as the floor : one brick and a half ; and above that, one brick. Single-family houses with a first-floor and attic-story : one brick ; with only attic upper story : three-quarters of a brick.

Hollow walls are allowed when the total thickness is not less than that prescribed for solid walls : the various support walls must not be less than half a brick thick, and the intervening space must not be less than 5 cm. In small single-family houses where the walls are three-quarters of a brick thick, these may be hollow ; the outside walls must be half a brick thick and the inside walls at least $5\frac{1}{2}$ cm., and made of tufa bricks or sheets of fire-proof material. The intervening space is usually moderately ventilated, so that the air remains dry. If there is too much ventilation the damp-proofing qualities of the wall are impaired, as the temperature in the empty space becomes the same as that of the outside air.

Partition walls. — Brick, usually only lightly baked, or bricks made of a mixture of compressed lime and sand hardened under pressure ; as a rule, one brick only in small houses or sometimes three-quarters of a brick.

Interior walls. — Blocks of flats : interior walls supporting beams, usually one brick as far as the top floor ; above that, half a brick. Interior walls which do not support beams but support floors (upper stories), usually half a brick. Single-family houses : non-supporting interior walls, half a brick throughout. In the case of houses with first-story and attic-story in the roof, interior walls supporting beams : one brick. Partition walls inside the dwelling : ordinary light bricks, tiles of cement and stone, pumice or grill-pattern rendering on both sides, not less than 5 cm. thick.

In the case of single-family houses consisting solely of a ground floor and attic-story, the latter must be provided with well-planed panelling at least 16 mm. thick.

The outside walls are not rough-cast. The bricks are properly set in mortar and the joints pointed. Brick walls are a characteristic of Dutch architecture and give to Dutch houses their particular beauty. The interior walls are plastered; the rooms of old dwellings are papered. Kitchens and W.C.'s are distempered; the latter have recently been painted with oil-paint, which should reduce the cost of upkeep.

Ceilings and floors. — In blocks of flats, the ceilings between two flats are usually made of wooden beams, covered with a wooden floor, with a rendering on the under surface. The joists are placed close together, 75 cm. apart. The large beams are attached to the outside walls. The joists are attached to the walls by iron bars of at least 320 sq. mm., so as to make the whole building sound and strong. Wooden floors are laid over the joists, minimum thickness, 22 mm., with rivets. Floors: under surface, fire- and sound-proof; plastered by the old method on laths, 6.5 by 18 mm.; on the upper surface, a layer of reeds fastened with copper wire and tin-plated nails, or rendering on metal grille. In blocks of flats, the under part of the staircases must be coated with plaster.

It has recently been proposed, in the case of ceilings separating several flats, to leave a space of about 3 cm. between the layer of plaster and the beams, using brackets to support the plaster. Thus vibrations from the floor and beams are not transmitted to the plaster and the sound is deadened to a much greater extent.

In single-family houses, such measures are usually unnecessary, though ground-floor rooms are often provided with a plaster or boarded ceiling. This is not a constructional requirement, nor is it necessary for protection against fire.

Chapter XI.

PRICE OF LAND.

The cost of the land prepared for building is determined by the following factors :

- (a) The cost of the undeveloped land ;
- (b) The cost of preparing it for building purposes ;
- (c) Loss of interest and cost of supervision, administration and management.

When the land is prepared by the commune and is not sold to the persons concerned but is let on leasehold tenure, the charge borne by the dwellings built on the land depends, not only on the price of the prepared land, but also on the rate of interest at which the ground-rent stipulated in the lease is calculated.

At *Amsterdam*, the value of land prepared for workmen's dwellings varied prior to 1914 from 20 to 27.50 florins per square metre. During recent years, this price has risen to as much as 40 or 44 florins, and it was only on account of the large grants made from communal funds that land could be leased at prices varying from 30 to 35 florins (Landlust district).

The land available for the construction of workmen's dwellings in the immediate future is situated in the Bosch and Lommer district. The cost of dividing it into plots and preparing it for building has been carefully gone into and works out at 45 florins per square metre — *i.e.*, an average of 1,360 florins per dwelling.

The rate of interest at which the ground-rent was calculated has been fixed at Amsterdam as follows :

	%
Before 1916	4
January 1st, 1916	4½
February 1st, 1916	5
August 27th, 1919	5½
December 2nd, 1920	6½
September 1st, 1922	5½
July 14th, 1933	5

Thus, for land for the construction of workmen's dwellings, the price of which in the years prior to the war varied from 20 to 27.50 florins per square metre, the ground-rent thus amounted to 0.80 to 1.10 florin per square metre. At the present time, in the Bosch and Lommer district, it will amount to 5% of 45 florins — *i.e.*, 2.25 florins per square metre.

At *Rotterdam*, where the land is sold by the Communal Land Department, the price varied in 1914 from 13 to 14.50 florins per square metre; for rather better-class dwellings, it was 18 florins per square metre.

On the north bank of the Meuse, the Blijdorp Polder and the Berg Polder have recently been developed for building. The land in these districts costs from 32 to 35 florins per square metre. The Oud Mathenesse Polder is now being developed; under the original plan, the cost of land in this district worked out at from 29 to 30 florins per square metre. The plan has now been revised and the cost reduced to 23 to 25 florins.

On the south bank of the Meuse, a piece of land in the Tarwebuurt has just been prepared for building. The roads have been made and the drains laid by the unemployed. This land is leased to private contractors at the approximate price of 21 florins per square metre.

At *The Hague*, the cost of land for workmen's dwellings varied prior to 1914 from 7 to 10 florins.

At the present time, land is being let leasehold at a rate of about 20 florins per square metre.

The ground-rent amounts, therefore, in round figures to 1 florin per square metre. This land is often sold by tender, the tenderers offering a lump sum. The highest tenderer obtains the land on leasehold tenure, subject to payment of the stipulated ground-rent.

At *Utrecht*, the 1914 price was about 7 florins per square metre and is at present in the neighbourhood of 14 florins. On land belonging to the commune of Zuilen, Utrecht building associations are erecting dwellings at a cost for the land of some 10 florins per square metre.

In the smaller communes, prices are considerably lower.

In rural districts, in places where it is possible to build along existing roads, building land can be obtained at the ordinary price of agricultural land, or at a very slightly higher rate.

When no site is available on an existing road, the land costs rather more, because a road has first to be made. At the present time, all building regulations include a provision to the effect that no building may be erected except at the side of a road which meets the communal council's requirements as regards position, dimensions, height, metalling, drainage and other necessary features, and also lighting. As a general rule, exceptions are allowed only in the case of farms and other detached buildings

used for agricultural and horticultural purposes and of detached houses 100 metres apart.

This provision ensures that, in principle, buildings will only be erected at the side of properly metalled roads. The result is, of course, that the cost of metalling the road, laying drainage, etc., raises the price of the land.

However, these expenses are not necessarily high. Even in the large towns, they do not go beyond reasonable limits. As a result of the general decline in the cost of building and the mechanisation of various operations, the cost of preparing the ground is not high in comparison with other expenses.

In the smaller communes, it is possible to find sufficient land at reasonable prices. This is, of course, more difficult in the large towns.

In the latter, the price of land prepared for building is affected mainly by the method of dividing it up. The development factor — the proportion of available building sites to the total area of the land — has decreased steadily during the last few years.

Formerly, the proportion allowed was 60 to 65 % for single-family houses and 50 % for buildings several stories high. Even if an individual were allowed to divide up his land as he pleased, he would nevertheless be obliged to allow one-third for public use if he built single-family houses and one-half in the case of buildings several stories high.

At the present time, the proportion in question is fixed under the new plan in Amsterdam at as low as from 40 to 45 % ; in the other communes, also, this proportion is low.

This fact has an appreciable influence over the price of land prepared for building. In the larger communes, the price is usually much too high.

However, it is not possible to remedy this state of affairs by arbitrarily increasing the proportion of the built-on area to the total area ; other factors have to be taken into account.

Suppose, for instance, that, in the case of a scheme in which this proportion is low and the price of the land is consequently too high, one road out of two is eliminated ; the result will be a considerable increase in the proportion in question, and hence an appreciable reduction per square metre in the price of the ground.

Nevertheless, this will not encourage the construction of cheap dwellings, because the area of the land occupied by each dwelling will be much too great and the price of the land per plot and per dwelling will be increased still further.

The increase in the development factor must be obtained otherwise — for instance, by making a clear distinction between " residential " streets and traffic arteries, and a rational distribution of the area assigned to squares and playgrounds.

When a plan is drawn up, care is usually taken to ascertain which streets are specially intended for traffic, either immediately

or later on. All the others are regarded as "residential" streets, and are made no wider than is necessary. When the street plan is drawn up, a further saving can be effected by making small front gardens, and as far as possible replacing costly paving by strips of grass and walks.

The proportion in question can thus be increased without needlessly enlarging the area of the land per dwelling, and also without endangering public health.

It should be pointed out, however, that the development of a district takes several years. When the plan for dividing up the land has been prepared and has begun to be carried out, it must be adhered to. Any modification of the principle applied will only produce its effects some years later.

That fact need not prevent any changes, even if their effect will not be felt for some time to come. It must not be forgotten, however, that they are likely to increase the price of the undeveloped land.

When land to be used for building is expropriated, the judge usually fixes the value of the prepared land and deducts the cost of preparation; the difference represents the value of the undeveloped land.

When the Landlust district at Amsterdam was expropriated, the judge fixed a basic price of roughly 40 florins per square metre for the prepared land. After deducting the cost of preparation, the value of the undeveloped land, at the time of its development, amounted to about 10 florins per square metre. This amount divided five times by 1.085, in order to take account of the loss of interest for five years, gives a cash value of about 7 florins per square metre.

Hence, any reduction in the cost of preparation and any saving effected at the time the land is divided up raises the price of the undeveloped land.

Any reduction in expenditure is therefore useless, since it does not lower the cost price of the dwellings. This observation applies, not only to the price per square metre, but also to the land utilisation regulations in respect of each dwelling (width of plots, number of stories, etc.). Any concession in this field also will ultimately result in an increase in the price of the undeveloped land.

Consequently, it would only be possible to reduce the cost of the elements which go to make up the price of the prepared land by means of legislative measures restricting the price of the land and prohibiting the assignment to prepared land intended for workmen's dwellings of a higher value than the price that can be paid for the construction of such dwellings.

The only measure which the large communes can take for the moment is to lower the rate of interest at which the ground-rent is calculated.

Chapter XII.

PRICE OF BUILDING MATERIALS.

As regards the price of building materials, the principal firms send out price-lists every quarter. The figures in these lists are compared and the results of other enquiries are also taken into consideration.

The average price of all building materials at a given date is then computed.

A few of these figures are given below :

PRICES OF PRINCIPAL BUILDING MATERIALS IN 1934-1935.

	Jan. 1st, 1934	July 1st, 1934	Jan. 1st, 1935	April 1st, 1935
	Florins	Florins	Florins	Florins
Vahal bricks, per 1,000, f.o.b. or f.o.r. (21 × 10½ × 5¼ cm.) :				
Hard bricks (waterproof) . . .	12.75	11.25	10.25	10.—
Grey (facing) bricks	11.50	10.25	9.25	9.—
Grey bricks (for outer walls) .	10.25	8.75	8.—	7.75
Red bricks (for interior walls) .	9.50	7.50	7.—	6.50
Limestone bricks, per 1,000, f.o.b. or f.o.r. (Vahal shape) :				
Ordinary bricks	8.—	6.—	5.—	5.—
Waterproof bricks	9.—	7.—	6.—	6.—
Belgian bricks, per 1,000, free port of landing (Vahal shape), first quality	9.—	8.75	9.—	9.—
Dutch tiles, per 1,000, f.o.b. or f.o.r. :				
Ordinary tiles { red	38.—	41.25	44.—	33.25
blue	43.—	46.25	49.—	38.25
Superior quality tiles { red	53.75	55.25	54.—	39.25
blue	59.25	61.—	59.—	44.25
Ferruginous earth pipes, per metre, delivered to site :				
Diameter 0.10 metre	0.56	0.62	0.55	0.50
Diameter 0.12 metre	0.65	0.70	0.63	0.58
Diameter 0.15 metre	0.75	0.80	0.77	0.68

PRICES OF PRINCIPAL BUILDING MATERIALS IN 1934-1935
(continued).

	Jan. 1st, 1934	July 1st, 1934	Jan. 1st, 1935	April 1st, 1935
Mortar powders delivered to site :	Florins	Florins	Florins	Florins
Lime in flakes, per hl.	1.10	0.96	0.93	0.73
Belgian lime, per 10,000 kg.	115.—	117.—	114.—	112.—
Portland cement, per 1,000 kg.	11.70	17.50	14.—	14.—
Beams for flooring and roofing, per cubic metre, delivered to site :				
Firwood (deal)	29.75	28.25	27.25	25.75
Silver fir	23.25	22.75	22.50	21.25
Floor boards, per square metre, delivered to site	0.65	0.65	0.60	0.58
Piles, per metre, free at landing port :				
From 14 to 16 metres	0.57	0.57	0.53	0.53
From 16 to 18 metres	0.51	0.51	0.52	0.51
Inside doors, each :				
Thickness, 0.035 metre	3.50	3.50	2.75	2.50
Thickness, 0.04 metre	5.—	4.50	4.—	4.—
Front and back doors :				
Thickness, 0.04 metre	5.—	4.50	3.50	3.25
Iron, per 100 kg., delivered to site :				
Profile irons	4.75	4.75	6.55	6.54
Iron for reinforced concrete	5.15	4.95	6.50	6.50
Iron drain pipes, asphalted inside, per metre delivered to site (dia- meter, 0.125 metre) :				
Thickness of wall, 6 mm.	1.80	1.90	2.43	2.70
Thickness of wall, 9 mm.	2.15	2.40	2.78	3.40
Lead, per 100 kg., delivered to site :				
Lead sheets	17.25	14.—	17.—	15.75
Lead pipes	17.25	14.—	17.—	15.75
Zinc, per 100 kg., delivered to site :				
Zinc sheets	22.—	18.75	17.—	17.75
Sanitary articles, per piece, deli- vered to site :				
W.C.'s : complete installation	12.50	12.65	16.50	17.90
Pans, each	6.30	5.97	6.90	7.50
Cisterns, each	6.—	5.72	6.90	7.30
White earthenware basins, each	8.40	7.65	9.75	9.20

PRICES OF PRINCIPAL BUILDING MATERIALS IN 1934-1935
(concluded).

	Jan. 1st, 1934	July 1st, 1934	Jan. 1st, 1935	April 1st, 1935
	Florins	Florins	Florins	Florins
Window-glass, per square metre, delivered to site :				
Single thickness	0.77	0.80	0.78	0.83
Double thickness	1.22	1.23	1.27	1.20
Linseed oil, per 100 kg., delivered to site :				
Raw	14.85	16.90	14.20	15.35
Boiled	18.50	19.60	17.20	17.90
Zinc white, per 100 kg., delivered to site :				
Dry	22.70	19.58	21.50	20.25
In oil (paste)	23.50	22.25	23.—	21.75
Siccative oil paint and Bremen green, per kg., delivered to site	1.62	1.62	1.78	1.78
Gravel and sand, per cubic metre, delivered to site :				
Gravel	3.32	3.05	3.30	3.25
Coarse sand	2.13	1.83	2.—	1.90
Dune sand	1.82	1.63	1.60	1.50

Chapter XIII.

ORGANISATION OF THE BUILDING INDUSTRY.

Urban expansion, which became more rapid after 1870, was first carried on by master workmen engaged in the various trades, particularly the carpentry and joinery trade ; in addition to their own occupations, which provided them with a living, they undertook to construct dwellings when business was somewhat slack.

Little by little the building of dwellings was taken over by "owner-builders", whose main source of income was derived from the provision of housing. The chief feature of their activities is that their financial resources are somewhat restricted, and that, after they have put up a relatively small number of buildings, they are compelled either to sell or to obtain mortgages on as favourable terms as possible.

Down to the last few years before the war, nearly all the dwellings in large towns, except houses for the well-to-do, were built by this class of owner-builder.

Under the housing law, the communal authorities were required, on the one hand, to lay down building by-laws, in order to ensure that new houses complied with certain minimum requirements from the point of view of hygiene and sound construction ; on the other hand, the law empowered the authorities to give financial assistance to associations, companies or foundations devoting themselves exclusively to the promotion of the interests of housing. The object of these grants is to permit the bodies interested to erect and manage well-built dwellings. In addition, the law opened up for communes wishing to engage in building themselves the prospect of obtaining financial assistance from the State, thereby greatly increasing the possibility — which, indeed, already existed — of their building houses themselves.

Building under the housing law progressed only very slowly and by degrees. Most of the buildings put up under this law were constructed by building associations, a few by the communes themselves.

When building began under the housing law, the building

industry underwent a fundamental change. Beside the owner-builder, who was owner, designer and executant in one, there appeared the architect and the contractor as separate figures.

I. BUILDING BY PRIVATE CONTRACTORS.

Shortly after the outbreak of the war, prices of building materials began to rise, and consequently building costs rose too. This increase soon assumed such proportions that house-building gradually came to a standstill and the Government was forced to intervene and offer help.

At first, the State merely assisted building associations and communes to erect houses under the housing law.

In consequence, private builders were thenceforth unable to continue their business. The large subsidies granted to the building associations and communes made it impossible for them to build without financial assistance.

Thus, private building — first of working-class dwellings and then of middle-class houses — came to a standstill.

In the end, the provision of housing fell largely into the hands of the building associations and the communal authorities. It was soon realised, however, that, in the long run, the State would be unable to shoulder the whole cost of building houses, and, further, that the associations and communes were unable to keep building sufficiently rapidly to meet the demand. In this respect, building under the housing law is definitely behind building by private enterprise, which, as has been shown by experience, builds quicker and more cheaply than the communes and associations. It became increasingly clear that, if private enterprise were ruled out, it would be impossible to overcome the housing shortage.

For that reason provision was made in 1920 for granting subsidies without security, and, if necessary, mortgages, to private individuals for building dwellings.

This subsidy is restricted to 20 florins per square metre, with a maximum of 2,000 florins per building for dwellings whose cubic content, as calculated from the external walls above the ground-level, does not exceed 450 cubic metres. If necessary, a mortgage may also be granted up to 90 % of the costs of building, less the subsidy, plus the value of the land.

This subsidy system was therefore based on the principle that the State allowed a fixed sum according to the dimensions of the building to anyone who put up a dwelling at his own expense and at his own risk. This sum may be regarded as covering the risk of a probable fall in the value of the building in the future. The recipient of a subsidy had simply to undertake to see that the dwelling was used as such for at least fifteen years, but apart

from that he was quite free to sell or let it. The whole of the subsidy was paid by the State.

The State paid only the sum originally fixed per dwelling. The owner was liable for any other risks. This system, therefore, acted as a strong incentive to those concerned to build cheaply.

The fact that subsidised builders were left quite free made this system of building popular. In a relatively short time, there was a complete revival of private building.

Not only did private contractors build dwellings under this system, but many private individuals, particularly in the country, took advantage of the subsidy system to build houses for themselves. When, owing to the unsatisfactory financial situation of the country, the advances made under the housing law had ultimately to be greatly reduced, a number of communal authorities and building societies also introduced the subsidy system.

As already pointed out, in addition to subsidies, first mortgages and building credits for a period of fifteen years could also be obtained if required. Redemption had to be made to the extent of at least $\frac{1}{2}$ % per annum during the first five years, and 1 % during the next ten years. The rate of interest was 6 %.

The communes were required to guarantee to the State regular payment of interest and redemption.

The decline in the amount of the subsidy during the successive periods is shown in the following table :

Date	Subsidy in florins per square metre	Maximum amount in florins per dwelling
December 7th, 1920	20	2,000
May 1st, 1921	20, up to 300 sq. m. 17, above 300 sq. m.	1,700
December 29th, 1921	15	
February 20th, 1922	12	900
March 10th, 1922	8	600
January 1st, 1923	—	300 (fixed amount)

The number of dwellings for which subsidies (fixed amount) were granted during the years 1921, 1922 and 1923, and the amounts of the subsidies and mortgages, are shown in the following table (page 72).

Since 1923, private individuals have built houses without financial assistance from the authorities. Persons wishing to build working-class dwellings can, however, obtain second mortgages at moderate rates.

This regulation is still in force in a modified form. At the present time, over 90 % of the total number of dwellings are once more being constructed by private individuals, as explained in Chapter XVI.

Recipients	1921	1922	1923	Total
Private individuals :				
One dwelling	3,960	4,082	1,104	9,146
Two dwellings	1,586	1,682	882	4,150
More than two dwellings	18,154	15,622	18,410	52,186
Communes	170	2,797	5,992	8,959
Associations	1,077	5,514	8,438	15,029
Employers	278	210	382	870
Miscellaneous	56	39	140	235
Total number of dwellings	25,281	29,946	35,348	90,575
Amount of subsidies without security	Florins 44,759,551	Florins 23,114,787	Florins 10,604,400	Florins 78,478,738
Amount of 15-year mortgages	67,872,865	9,090,730	—	76,963,595
Final amount of subsidies (after deductions in respect of changes and cancelled sums)	—	—	—	67,609,998 ¹

2. CONTRACT SYSTEM.

As already stated above, this system only came into fairly wide use in the building trade in relatively recent times — in fact, with the great increase in house-building by associations and communes, in the years during and after the war. Associations and communes rarely construct houses themselves, and recently the work has generally been offered for tender.

The contractor — and this system has been in force for over a century for utilitarian buildings — is a person who contracts with the owner for the whole of the work in return for a fixed sum beforehand, and assumes the whole risk and responsibility. He purchases the various materials, supplies the necessary equipment and engages the labour.

The main advantage claimed for this system is that while the house is being built the whole responsibility is centralised in one person, who has a strong personal interest in performing all the work as competently and economically as possible.

Owing to competition among the contractors, only those who, through their personal abilities and financial resources, are fully competent to carry out this heavy and hazardous task are able to hold their own. Having followed the trade since they were

¹ This amount relates to 77,592 houses, of which 56,098 were built by private individuals, 13,994 by associations, 6,408 by communes, and 1,092 by employers and various institutions. A subsequent enquiry shows the number of houses constructed to have been 76,069.

young, gradually undertaking more extensive work, they have been able, in course of time, to acquire the necessary ability.

Among the chief drawbacks, from the point of view of the owner, to offering the work for tender, the following may be mentioned :

(1) The *clash of interests* between contractor and owner, which may lead to the use of inferior material and jerry-building ; sometimes the contractor also asks a higher price than would represent fair remuneration for services rendered — whether there has been a preliminary agreement or not between the contractors.

(2) The *great risks* to which the contractor is often liable while the work is in progress, which in unfavourable circumstances may affect the owner if he has failed to cover himself against them.

(3) *Labour difficulties*. — It is sometimes maintained that there is less difficulty over the construction of working-class dwellings ; in this case, the workers would be in direct touch with the representatives of the owners and would more easily realise that the building of working-class dwellings is in the public interest.

The point mentioned under (1) (risk of use of inferior materials and jerry-building) does not call for any special remarks. It can be remedied by strict supervision of the building operations by the owner. At the same time, the remuneration charged by the head of the undertaking for supervision may easily amount to between 1 % and 1.5 % of the actual building costs. Even when the owner supplies a more or less considerable part of the material, he must still exercise supervision.

With regard to the price agreements mentioned under (1), the nature and size of many works is in itself such that only a few contractors are able to tender, so that to start with the number of competitors is limited ; and this circumstance enhances the possibility of their knowing each other or rapidly finding each other out. Two methods may be employed to widen this ring, both of which may, within certain limits, be recommended ; steps may be taken to : (a) prevent the submission of tenders for excessively large blocks of buildings ; (b) enable partial tenders to be submitted.

With regard to (b), it is obvious that contractors who undertake the whole work and those who carry out only one particular part of it take different views. For the owner, the advantage of an inclusive tender is that the chief contractor can be made wholly responsible for the work. The owner has not to co-ordinate the parts of the work to be carried out in turn by the different trades.

On the other hand, under this system the owner does not

follow the work so closely and runs more risk of being unable to cope expertly with a contractor who is not absolutely trustworthy.

Experience has shown that it is always advisable to place the carpentry and masonry work in the same hands ; this work is so closely interconnected that it would always prove disadvantageous to divide it up. Wall-plastering and stucco and plumbing should be done by the same contractor as for the first-named two parts of the work. It is less important for excavation and the driving of piles and laying of foundations, or painting and paper-hanging, to be done by the same contractor. Nowadays, in nine cases out of ten, the chief contractor places sub-contracts with firms specialising in this work. It is not possible to say in every case whether it is more economical for this work to be given out by the chief contractor or by the owner himself. To obtain a separate tender whenever the interests of the building will not suffer thereby greatly increases the number of competitors for all kinds of subsidiary work.

That is why it may be desirable to obtain separate tenders for painting and paper-hanging ; for other work a separate tender is not considered necessary, except in special cases.

Whatever the system of tendering, the competence of the proprietor or his representative will necessarily be the most satisfactory guarantee against any abuse.

Very detailed estimates should be insisted on, in order to prevent the contractor from fixing exorbitant prices.

The building associations which since 1918 have been the principal tenderers naturally have no one, or very rarely have anyone, in their service who, by reason of their training or occupation, can be regarded as competent. The architects who submit tenders on their behalf are not materially interested in obtaining the lowest possible prices ; they sometimes allow themselves to be guided by artistic rather than by economic considerations, which they sometimes treat as a negligible factor in building. Again, the use of new building processes never before employed in the building of cheap dwellings sometimes makes it very difficult to calculate the exact cost.

Those communes which have themselves undertaken the building of dwellings are in a more fortunate position ; but there, again, changes in prices and wages have led to the adoption of less strict methods of calculation, or, rather, these changes have meant that the method of calculation gives less accurate results.

As a rule, prices are fixed per unit, calculated per cubic metre for excavation and for the various masonry works and carpentry, and per square metre for painting and wall-plastering and stucco. These prices per unit include the cost of the various materials and wages. They are multiplied by the total number of units involved in the execution of the work ; the total amount of the estimate is finally obtained by addition.

This method is quite reliable as long as the prices of materials and wages remain stable and the prices per unit confirmed by long experience can consequently be taken and continue to be used. The method is not so reliable if prices undergo appreciable variations, unless there is some means of knowing at any moment exactly the quantity of materials and labour necessary per cubic or square metre of work and unless it is possible, on the basis of this number of units and with these separate prices for materials and labour, to recalculate the total of the prices per unit per cubic or square metre and embody these new unit prices in the estimate. A rough and ready calculation which, instead of taking as a basis the elements composing the prices per unit, simply applied to those former prices a specific coefficient of increase is wholly unreliable when the market is fluctuating.

It is desirable, accordingly, always to demand a detailed estimate for all tenders.

The estimate should show separately :

(1) The total cost of the excavation and foundations, masonry, carpentry, painting, glass, wall-plastering and stucco, plumbing, concrete, stone-cutting, ironwork and wallpapers. Against each total should be shown separately the price of the materials ex-wharf or ex-rail, and wages, together with cost of transport to site and insurance premium. The item "overhead costs" should be divided into the various components — interest, amortisation and upkeep or renting of plant, wages (including profits and the premium for risk) for the execution of the works and the various heads of expenditure.

(2) The sums to be deducted from the total amount of the estimate, if the tender does not include painting and paper-hanging.

If necessary, other works will also be excluded.

In connection with every tender it is desirable, therefore, to allow for separate tenders for these categories of works.

(3) The cost of the materials and wages in connection with the works mentioned under (1). This expenditure will be divided up into the more important items which compose it. Masonry, for instance, should be divided up as follows : foundations, cementing, façade on the side facing the road and opposite façade, interior walls, partitions, chimneys, etc.

Under each of these heads should be shown separately the number of units of materials and the number of hours' labour required ; after having been added to similar units, they are multiplied by the prices per unit, and this gives the total figures referred to under (1).

In order to avoid unnecessary calculation and to enable the various tenderers to do so in a clear form admitting of comparison,

each tender should also include a complete list of all the quantities of materials. The particulars of the various works mentioned under (1) should be given on printed forms, to be filled up by the tenderers.

Where it is found, in the carrying out of the work, that the actual quantities are above or below those shown in the estimate, the difference, under a special "more or less work" clause in the estimate, will be deducted on the basis of the relevant prices per unit.

Proper remuneration is recommended for this work of assessment — very simple, it is true — to the three parties who have submitted the lowest estimates. It should be stipulated, however, that the owner will retain the right to allocate the works; further, the sum in question should not exceed an amount representing payment for actual work done.

By means of these detailed estimates, the party ordering the work will be better able than in the past to form an opinion as to the sums that he really has to pay.

The risks run by tenderers are as follows :

- (1) Differences — increase or decrease — between the actual work and the work provided for in the estimate ;
- (2) Fluctuations in the prices of materials ;
- (3) Variation of wages ;
- (4) Strikes or labour shortage ;
- (5) Bad weather.

The first point has already been examined.

As regards the second — fluctuations in the prices of materials — the person submitting the tender should, as a rule, bear the entire responsibility.

It was only natural that, during the war and the post-war period, when prices were mounting, persons tendering should have shown a tendency to decline responsibility for this risk either wholly or in part, and that economic considerations should, for the most part, have forced them to adopt this course. It is natural, also, when the cost of materials shows a downward tendency, that contractors should be inclined to assume full responsibility for risks of this nature. Even supposing that it were possible to show definitely that variations in the prices of materials are a source of big profits, there would be no reason to leave such profits to the party submitting the tender.

No such certainty exists, however. It may be admitted, no doubt, that, if the procedure for tenders described above is adopted, the cost shown by the parties tendering will take fully into account the probability of a fall in prices. In any case, the owner, when scrutinising individual amounts, must determine each time whether the price per unit for specific materials which is shown in the

estimate does or does not exceed the level which, according to the data at his disposal, is likely to be reached when the work is carried out. If this likelihood is very great, he will raise this question of the difference in prices during the negotiations for the award of the contract and will demand a reduction ; or he may stipulate that the materials shall be delivered by himself, or, if necessary, decide not to accept any tender and ultimately have to have the works executed directly. Within certain limits, it should be possible in this way to bring the prices for materials down to the level which may be regarded as equitable in view of the existing state and prospects of the market.

The third point—that is to say, the risk arising out of fluctuations in wages—can be explained briefly. If the contract is accepted, and the basis taken for the various categories of workers in the building trade is an average hourly wage fixed by the authorities, and if, while the work is being carried out, for one reason or another, it is considered desirable to alter this average wage, then it is only just that the tenderer should be given full allowance for this alteration, since it has been made with the complete approval of the authorities. The contractor should, of course, only be entitled to an allowance for the number of hours' work which the various categories of workers have still to carry out after the alteration of the wage-level. This number is equivalent to the difference between the number of hours provided for in the estimate and the number of hours' work already carried out.

Nevertheless, no circumstance whatever, other than a change in the wage-level approved by the public authorities, should occasion an alteration in the item for wages in the estimate.

The fourth point—that is to say, the risk of a strike, lock-out or labour shortage—can also be dealt with briefly. Should workers unexpectedly refuse to work on the conditions laid down by the authorities, the risk resulting therefrom should fall, not on the tenderer, but on the authorities who have fixed the conditions of work. Likewise, if passive resistance methods are adopted, and the workers merely pocket the minimum wage agreed upon, after having just put in an appearance and without having done the requisite work, the tenderer should be regarded as entitled to declare a lock-out. On the other hand, there is also the possibility of the contractor contriving a strike or lock-out, either by not observing the regulations laid down by the authorities or in some other manner.

It is hardly possible to provide a fixed formula to meet all contingencies, and, if necessary, disputes should be dealt with by arbitration.

3. BUILDING BY THE AUTHORITIES THEMSELVES AND INTER-MEDIARY FORMS BETWEEN BUILDING BY THE AUTHORITIES AND BY TENDER.

During the war, it was mainly the great risk resulting from the soaring prices of materials and of wages which deterred many contractors from tendering, or at all events led them to demand very heavy bonuses in order to cover the risk in question.

Sometimes this situation also led to the work being imperfectly carried out, since the tenderer was not in a position to meet the losses he had sustained, or he endeavoured to delay the work in order to wait for a favourable moment for the purchase of materials. For both reasons endeavours were made in large communes, where these difficulties were most acutely felt, to adopt different methods for the carrying out of building work.

Only rarely was building carried out direct by the authorities.

Mention should be made here of the so-called "percentage" system, which may be regarded as an intermediary form between direct carrying out of building by the authorities and free tender. During the war, systems of this kind were sometimes tried.

As under the regime of normal free tender, the tenderer is bound to a specified amount. In the difficult circumstances which existed during the war, it was, however, probable that this lump sum included a fairly high sum for insurance against risk. For this reason it was considered fair that, if the actual expenditure of the tenderer was markedly less than the amount provided for, the owner—that is to say, the commune—should benefit by that difference. It was therefore stipulated that the tenderer should have the right to a maximum payment, consisting of the amount of actual expenditure plus 5 %, and that in no case should he receive a sum higher than that fixed beforehand.

In criticising this allowance of 5 % to the tenderer, we should remember that (1), as a rule, this percentage was calculated on about two-thirds of the total cost of building, since the commune, on its side, found a large part of the necessary materials; and (2) this percentage included a general item for loss of interest.

This system of a 5 % bonus can only fulfil its purpose if the maximum does not exceed that which would be obtained by free tender. Should that condition be fulfilled, there is little risk that the contractor will relax his efforts for the sake of economy; indeed, up to the last moment, he is liable to exceed the maximum allowed. Thus, contractors do not seem to have endeavoured to approximate to the limit in order to draw 5 % on as high a sum as possible.

Under this system, too, the contractor is always obliged to make considerable advances for payment of wages and certain other expenditure. But, apart from this, the system may be

said to amount to a form of direct building by the authorities in which the contractor has a large measure of independence and therefore receives appropriate remuneration.

As has already been said, the old form of direct building by the authorities through the municipal services hardly exists now and has few supporters.

4. HANDING-OVER OF WORK TO PRODUCTION CO-OPERATIVE SOCIETIES : BUILDING GUILDS.

Workers' production co-operative societies have existed in the building industry for some decades.

After 1870, in working-class circles great hopes were placed in the development of these institutions ; the General Netherlands Workers' Federation (Algemeen Nederlandsch Werkliedenverbond) has more than once expressed itself in their favour.

After this movement, the practical results of which were inconsiderable, it was about 1901 that active propaganda was carried on in the Netherlands among workers to the effect that they should themselves take over the direction of industry. After the great strikes of 1903, the ground was more favourable and a number of workers' co-operative associations were set up in the building trade and in some allied trades. Co-operative associations of bricklayers and bricklayers' labourers, painters, plasterers and plumbers were thus founded.

These co-operatives had only a small working capital, which was furnished by the worker-members. It was sufficient to pay for the necessary tools and materials, but not to enable these associations to act as contractors themselves. Their activities, particularly in the masonry trade, were therefore practically confined to undertaking jobbing work in competition with the " gang bosses " (independent foremen having a gang of workmen), whose part in the building industries of large towns is well known.

The history of these co-operative associations is, on the whole, not a very happy one.

In order to understand the method of work of most of these associations, it must be remembered that they have mainly been founded by workers who desired to escape from the authority of the employer.

Thus, most of the regulations of these associations lay down that the assembly of members shall appoint for each job a foreman to direct the work according to the instructions given him by a permanent committee. This foreman is responsible to the committee, and the committee in its turn to the association of members. The foreman can therefore act only so long as he does so with the approval of the members.

So far as fixing of wages is concerned, all associations do not

use the same method, but in most cases members are guaranteed a fixed hourly wage equal for all. If, after wages and all other expenses have been paid, including interest on the capital of the association, there are any profits, a fixed part of the latter — for example, 50 % — is divided among the members in proportion to the number of hours of work that each has done for the association ; the rest is placed to reserve or used for propaganda.

The co-operative associations prefer to employ their own members. Candidates, before being admitted as members, must pass through a probationary period — for instance, three months. The person concerned must be skilled in the trade, and be a good worker and good comrade. It is also thought that the guarantee that each will do sufficient work will be found in the spirit of comradeship. If a member is too old or not strong enough to do his share of work, the fact is overlooked ; but idlers are eliminated by means of mutual supervision, even supposing that they have managed to become members of the association.

Writers on economic subjects seldom favour these production co-operative associations. In most countries where such undertakings exist, it has been found that these associations generally collapse after a few years and that only a few of them become really viable concerns. Most of those who survive abandon their original purpose and become organisations in which the small group of old members enjoys a highly privileged position in comparison with new members.

Another form of undertaking is the building guild, which has many characteristics in common with the workers' co-operative association, but with this difference — that the workers' trade unions exercise a considerable influence over the guild's management. The schemes prepared in Amsterdam in 1920 were based on collaboration between sections of the four great unions of workers in the building trade ; each of these sections was to appoint two members of the guild.

These institutions have not been set up, however, since, after mature reflection, no great enthusiasm for participation in this movement was shown by the members of any of the four organisations concerned.

Chapter XIV.

BUILDING ASSOCIATIONS.

The idea underlying the housing law is that the authorities are responsible for seeing that the dwellings to be constructed are of a satisfactory standard, and for this purpose the communes are required to issue building bye-laws. In the case of existing dwellings, the communal authorities are required to discover those which are in a bad condition. The communes are also required to take all the necessary steps with regard to dwellings of this kind — to order improvements and to condemn defective dwellings as unfit for habitation.

On the other hand, as the community is at present organised, it is left chiefly to private initiative to provide the new dwellings required by the population. The law does, however, provide for the contingency that private initiative may prove inadequate, and accordingly relies on the goodwill and spirit of initiative of those concerned. They may set up building associations, and, if the latter are formed in accordance with certain conditions laid down in the housing law and in the Royal executory decree, and if in virtue thereof they are recognised by Royal decree as “working exclusively for the improvement of housing”, they can obtain financial assistance from the authorities. This usually takes the form of an advance on favourable terms.

Below will be found a fuller statement as to how both systems work. We would point out at once that the commune supplies the association with funds in the form of advances, as prescribed in the housing law, and may obtain the necessary capital by borrowing it from the State.

The housing law does not primarily provide for the building of houses by the communes themselves, but the Government has no fundamental objection to their carrying out building schemes.

As used below, the word “associations” also covers any other bodies which may be set up under the housing law, such as foundations, limited liability companies and co-operative associations.

The main business of a recognised association is to *build* dwellings. It may, however, carry on other forms of activity; the law simply makes recognition of the association subject to the condition that it “is working exclusively for the improvement of housing”.

Thus the aim of an association may be to pull down slums, or the whole of an insanitary quarter. As a matter of fact, demolition would normally be followed by the erection of new buildings. Demolition need not necessarily be combined with rebuilding, however.

Furthermore, recognised associations may acquire existing buildings for reconditioning. In particular, this may permit of the housing of very poor families — for instance, families who have had to leave their homes because these have been condemned as unfit for habitation.

Lastly, dwellings may have been built by third parties, and the association entrusted only with their management.

Experience shows that, as a general rule, it is easier for an association to erect dwellings than to demolish them. In the latter case, the association will always be faced with a deficit. How is it to be covered? Philanthropists may sometimes be found who will be willing to supply the necessary funds; but, generally speaking, the commune will be obliged to come to the rescue. It will then — quite rightly — claim a share in the management of the association. It will be compelled, particularly when the work of demolition is extensive, to take into account interests other than those covered by housing in the strict sense of the term. Very often the commune will take a wider view, and will thus see the situation differently from an association, which is concerned solely to improve housing and has naturally less data at its disposal than the communal authorities. In this connection, therefore, it would seem advisable to give preference, at any rate in towns, to communal action; but there is no objection in principle to an association carrying on its activities. Much will depend on local conditions.

However, the work of an association usually consists in building. We shall therefore deal below almost exclusively with building associations.

Even before the housing law came into force, there were various associations of this kind. In Amsterdam, in particular, buildings were put up on a really extensive scale by associations.

Since then, the housing law has given a new impulse to the work of the associations, for two reasons. In the first place, the law led the authorities to condemn and evacuate far more dwellings than in the past.

It was very difficult, especially in the country, to declare dwellings unfit for habitation, because there were not enough dwellings available. In a good many cases this difficulty caused the associations to turn their attention to house-building.

In the second place, the law promoted the activity of the associations by supplying them with the necessary funds for building, at any rate when the commune was willing to assist.

It is for the building associations to set an example. Thus it is

their duty to abandon the deplorable practice of building alcoves, and to build dwellings with separate bedrooms instead of box-beds, to endeavour to reduce the normal number of stories, etc. To set an example by introducing model management should also be regarded as pioneer work.

As a rule, buildings erected by associations will mean buildings of a better *type*.

Recognised associations must be "working exclusively for the improvement of housing". Consequently, they can have no other aim. They are not allowed, for instance, to run nursery schools for the children of families living in their dwellings, to form improvement clubs, etc.

In various respects, the limits of this prohibition have still to be defined in practice. It is necessary, of course, that blocks of flats should also comprise shops, a general bicycle-shed, an office for the administration of the association, and a storage place for purposes of the upkeep of the buildings.

Nor has the Government any objection if from half to two-thirds of a hectare of land is let together with a house in districts where economic conditions make such a plot a necessary adjunct for the tenant. This applies particularly to Friesland, where the land has already been prepared to some extent.

As already pointed out, recognition may be given to various types of legal entity; none is ruled out. Limited liability companies, foundations, associations formed under the law of 1855 and co-operatives all share in the advantages offered by the housing law. The only condition imposed is that they must be "working exclusively for the improvement of housing".

It may be asked, then, in what circumstances is it better to choose an association, a limited liability company or a foundation?

Recourse is rarely had to the system of co-operatives. In the circles concerned, however, preference is given to associations of which the occupiers of the dwellings are also members, provided, however, that they are able to take sufficient interest in the activities of the group. The reasons advanced in the first place are those which are generally advanced in favour of co-operation: the consumers themselves decide — within the limit of their means — how their requirements should be met. In addition, if such an association is composed of the persons concerned, there is the maximum possibility that it will be, and will continue to be, active, at any rate when, from the beginning, sufficiently large numbers are concerned and when it is open to new members. If this condition is fulfilled, the association runs no risk of becoming a small body of persons whose only object is to secure dwellings for themselves. In fact, it is too often found that, after a period of activity, associations cease to build as soon as certain administrators leave or become absorbed in other occupations. The activity of an association depends to too great an extent on a

few individuals. A group consisting of the persons concerned will, however, be able to ensure active administration. If some administrators leave, others, equally active, will take their place. Particularly when the group remains open to new members, to whose interest it is that building shall continue, there will be a constant incentive to activity. Thus the constant activity of the association is ensured, and that is an undoubted advantage.

Moreover, this system, being more democratic than other systems, is more in line with present tendencies.

Management may, however, be harder, because the administration has less authority over members than over difficult tenants, whom it can evict if necessary.

No doubt in some cases a meeting of the members has brought too much pressure to bear on the management, so that the latter has been unable to act with the necessary firmness. Member-tenants have shown some tendency to regard the managing board as their "man of business", who, because he is elected by them, must carry out the tenants' wishes in all respects. Accordingly, stronger persons are needed on the managing board than in other cases.

In yet another respect associations of member-tenants are weaker than associations of interested persons. As will be pointed out later in another connection, experience shows more and more that it is not so easy as was at first thought to administer a building association as conscientiously as the commune and the State have a right to require. Those wholly disinterested persons who occupy the highest posts and are responsible for the general policy of the concern as a whole, but who have to do this work as a sideline in addition to their usual occupation, are precisely the ones from whom more has been required than had originally been previously anticipated. Even those who hold the most democratic ideas are obliged to recognise that, the humbler the class of the members of the association, the more difficult it is to find persons having the necessary qualifications and authority.

Provisionally, therefore, there will certainly still be a place for these associations of interested persons besides the member-tenant associations.

Nevertheless, the association of member-tenants must often be regarded as the most suitable form.

Yet it is not recommended that the form of association provided for by the law on co-operative societies should be adopted for this purpose; the object in view may be reached in a simpler manner. An association the members of which are at the same time the occupants of the dwellings (and subsequently hold shares in the association) and which, from the economic point of view, constitutes a co-operative society, may also be said to be set up in the form of an association within the meaning of the law of 1855. In that case its statutes may be less complicated and it is possible to avoid the high legal expenditure involved in drawing

them up ; furthermore, certain administrative formalities which are compulsory for a co-operative society may be omitted.

Under the law of 1855, it is possible to adopt any kind of regulations. The association may consist of paying members, founder members, members admitted by ballot and co-opted members (who are not required to pay subscriptions). Shares may be issued carrying with them membership of the association, and a rule to this effect may be added to the above-mentioned regulations, or be independent of them. The right to vote may be fixed in any manner desired, making it conditional or not on the owning of shares. Those who have supplied the capital may have the right to a preponderant vote, but it is also possible to limit their influence. Resignation from membership may be also freely regulated. As in the case of a co-operative society, the capital need not be limited to a fixed sum ; but, on the other hand, there is nothing to prevent it being laid down, as in the case of a limited liability company, that the capital should be fixed and that a certain minimum part of it must be issued before the association can commence its activities. The capital may be constituted by the issue of shares and debentures. In short, an association set up under the law of 1855 may adopt practically any conceivable regulations.

The form of the limited liability company does not leave as much latitude. The amount of the share capital is fixed. It cannot be decreased by the withdrawal of a member. At the shareholders' meeting the right to vote is almost exclusively confined to shareholders. The number of votes will probably depend on the number of shares. Every shareholder, whatever be the manner in which he has acquired the shares, has the right to vote.

Any of these conditions are compatible with an association under the law of 1855. They are not essential, however ; and it may be asked whether such regulations do not give rise to difficulties. Is it advisable to reserve the right to vote to shareholders in an association which nevertheless has not essentially a commercial purpose ? Is there not much to be said for making the right to vote independent of the number of shares ? Is it desirable that the shares, and therefore the right to vote, should be held by persons who perhaps take no interest whatever in the activities of the association, who live elsewhere and who are satisfied if they receive their 4 % dividend ?

While retaining the advantages of the limited liability company, the form of association incorporated under the law of 1855 makes it possible to meet all these objections.

This does not mean that the form of the limited liability company should never be chosen. Firstly, it has the advantage of being a better-known legal form than that of the associations and perhaps inspires more confidence in those circles which may provide the largest amount of capital. If it is necessary to obtain

considerable funds, that may be an argument for choosing the form of the limited liability company. Secondly, the limited liability company requires less active personal participation from those concerned than the association; and that means that the board of management is stronger. It would be very unusual to appoint the board of management for an association for an indefinite period; on the other hand, such a course raises no difficulties in the case of a limited liability company. If it is desired that the board of management should be able to act without being too dependent on the other bodies constituting the organisation, the limited liability company has its advantages.

Lastly, the form of a foundation will be chosen when an existing association or institution, which has not as its purpose the building of houses, desires to do so under the housing law.

Such an association or institution cannot be recognised, because it is not working "exclusively for housing improvement". Nevertheless, there is nothing to prevent a "section" of the association being set up which will constitute a separate legal entity and will be recognised, but will be managed by the board of the already existing association or institution. Indeed, innumerable variations are possible.

In this way the Nederlandsche Werkliedenverbond Patrimonium has set up a number of building associations and that "Het Nut" and other organisations have set up building associations in Groningen and Friesland.

It will also be desirable to choose the form of the foundation when an existing building association, which for some reason or other does not desire to be, or cannot be, recognised (for instance, because it is not working exclusively in the interests of housing, because it maintains a nursery school, organises excursions for children, etc.), desires to obtain an advance under the housing law. A foundation is then set up, which, however, remains a section of the existing association.

Lastly, the foundation has the advantage that it can be set up in a very short time. As soon as the statutes have been passed, recognition can be applied for. This is particularly advantageous when a housing shortage has to be remedied speedily.

The foundation must have its own capital, a fact which is not necessarily an obstacle in the way of the institution setting it up. Indeed, there is no regulation fixing a minimum for the foundation's capital.

Each of the legal forms mentioned above requires different statutes. In so far as the tenor of the statutes does not depend directly on the legal form chosen, they may be extremely similar. There are certain provisions that all *must* contain. As has already been pointed out, the decree on housing lays down certain requirements with which the statutes must comply if the association desires to be recognised.

The recognition of the associations, limited liability companies and foundations as working " exclusively for the improvement of housing " is effected on application from their board of management, either (a) by Royal decree approving the statutes of the association, or (b) by a special decree when the application comes from a foundation or a limited liability company or from an association whose statutes have already been approved.

The above provisions apply, *mutatis mutandis*, in respect of the continuance of approval should the statutes or the act of foundation be amended or completed.

The application for approval of a foundation must be accompanied by an authentic copy, or manuscript or printed copy signed by all the members of the board of management, of the notarial act setting forth the constitution and the purpose of the foundation.

An application from a limited liability company or from an association whose statutes have already been approved must be accompanied :

(a) By an authentic copy, or manuscript or printed copy of the act of foundation or of the statutes signed by all the members of the board of management ;

(b) By evidence that, in respect of the limited liability company in question, the declaration required from the Minister of Justice has been obtained or that the statutes have been approved, in both cases in accordance with the legal provisions in force ;

(c) By evidence that the statutes or the act of foundation have been published in accordance with the legal requirements.

The above provisions apply, *mutatis mutandis*, to all applications in respect of the continuance of approval should the statutes or act of foundation have been amended or completed.

Approval is refused :

(a) When it is clear from the statutes or from the act deposited or if it is ascertained in any other manner that the association, limited liability company or foundation is not working " exclusively for the improvement of housing " ;

(b) When the statutes or act deposited do not comply with the requirements of the housing decree ;

(c) When the granting of approval is not held to be in the interests of the improvement of housing.

The above regulations also apply, *mutatis mutandis*, to all applications concerning the continuance of approval should the statutes or act of foundation have been amended or completed.

The Royal decree refusing approval or continuance of approval gives the reasons therefor and is published in the *Nederlandsche Staatscourant*.

Chapter XV.

COSTS OF BUILDING AND MANAGEMENT.

The difference in building costs between a single-family house and a multiple-family building is problematical. A dwelling in a block of flats and a comfortable single-family house can be put up in a given space, in satisfactory conditions, at the same cost. If they are built very simply, the balance even turns in favour of the private house.

Various calculations as to costs and the results of tenders are to be found in technical documents, for the purpose of showing that an increase in the number of floors means a decrease in the cost per dwelling. The cost price of a dwelling consisting solely of a ground floor is then compared with that of a building covering the same area with two, three or more floors. It is pointed out that the price per cubic metre of the ground floor is the highest, and that the price of the first and second floors is considerably lower ; on the other hand, the price of the upper floors rises owing to the increased cost of mounting the materials. It is concluded that, apart from the price of the land, the cost per dwelling can be reduced by erecting higher buildings.

This conclusion is not correct. No doubt the cost of the first floor above the ground floor on the same area is lower, because the cost of the foundations, piping and roofing has only to be paid once. At the same time, this also applies to single-family houses. In fact, there are hardly any single-family houses in the Netherlands which consist only of a ground floor ; even the simplest houses always have two floors, each of which is half the area of a dwelling of the same cubic measurements in a block of flats. As a matter of fact, there can hardly be any difference between a single-family house and a block of flats with two floors. Even when there are a greater number of floors, the difference is very questionable, since in a private house the height of the bedrooms on the first floor can be reduced and that floor can be built very simply.

The question of a single-family or multiple-family house does not depend, therefore, on building costs ; but it is at all events possible to combine different types of practical dwellings for which this question does not arise.

In 1934, a thorough investigation was made of the cost of building working-class dwellings, as compared with the cost in 1914.

For this purpose the communes were divided into groups in accordance with the wage-categories in the collective regional contract of the building trades.

A number of directors of communal services in each group were asked to state their experience of the movement of building costs since 1925. Furthermore, the price per cubic metre of blocks of buildings constructed with the help of the housing law subsidies was fixed.

On the basis of these data, Table XXVI below was drawn up. This table shows for the period 1925-1934 the average cost price per cubic metre of working-class dwellings, as measured by the external walls above the ground floor.

After the slump in building prices in 1921 and 1922, it seemed that the position would be relatively stabilised and that there would in future be only slight price fluctuations.

At the end of 1929, prices went down, and fell considerably after the depreciation of the pound sterling in September 1931. The lowest point appeared to have been reached in November 1932. During 1933 there was a slight improvement, but since then prices have again fallen.

The figures in Table XXVI should be interpreted very cautiously. They are yearly averages relating to buildings offered for tender. Consequently, the buildings were not always actually put up during the period for which the price is given.

Table XXVI. — COST OF CONSTRUCTION OF DWELLINGS PER CUBIC METRE IN THE COMMUNES OF THE CLASSES IN THE COLLECTIVE AGREEMENT.

Year	Maximum	I	II	III	IV	V	Average
	Florins	Florins	Florins	Florins	Florins	Florins	Florins
1924 . .	9.00 (100 %)	8.30 (100 %)	7.75 (100 %)	7.55 (100 %)	7.00 (100 %)	6.50 (100 %)	7.65 (100 %)
1925 . .	14.80 (165 %)	13.70 (165 %)	12.70 (164 %)	12.46 (165 %)	12.67 (182 %)	11.00 (169 %)	— (168½ %)
1926 . .	15.15 (168 %)	13.40 (162 %)	12.60 (163 %)	12.50 (166 %)	12.00 (172 %)	11.25 (173 %)	— (167½ %)
1927 . .	14.55 (162 %)	13.95 (167 %)	13.45 (174 %)	12.44 (164 %)	10.87 (155 %)	10.18 (156 %)	— (163 %)
1928 . .	14.00 (156 %)	13.03 (157 %)	13.00 (168 %)	11.72 (155 %)	11.20 (160 %)	10.45 (161 %)	— (159½ %)
1929 . .	13.70 (152 %)	13.03 (157 %)	12.75 (165 %)	11.97 (159 %)	11.12 (159 %)	10.60 (163 %)	— (159 %)
1930 . .	14.30 (159 %)	12.95 (156 %)	12.55 (162 %)	11.90 (158 %)	11.50 (164 %)	11.00 (169 %)	— (161½ %)
1931 . .	12.60 (140 %)	12.56 (151 %)	12.40 (160 %)	11.50 (153 %)	10.60 (151 %)	9.80 (151 %)	— (151 %)
1932 . .	11.95 (133 %)	10.82 (143 %)	11.15 (144 %)	10.02 (133 %)	9.80 (140 %)	8.85 (136 %)	— (138 %)
1933 . .	10.95 (122 %)	9.90 (120 %)	9.55 (123 %)	9.37 (124 %)	9.00 (129 %)	7.85 (121 %)	— (123 %)
1934 . .	±10.80	±9.90	±9.30	±9.00	±8.40	±7.75	(120 %)

The costs of management of new dwellings differ in several respects according to whether the building was put up by private individuals or by the associations and communes with the aid of advances under the housing law.

In the latter case, the advances may be repaid in fifty — or, if desired, seventy-five — equal annual instalments. For the period of the loan, therefore, the annual instalment remains the same.

Consequently, it is, in the ordinary course, not necessary to raise the rent during this period, nor is it possible to reduce it, even if a reduction is necessary. Generally speaking, the rent remains the same for the period of fifty years (or seventy-five years, as the case may be).

Private individuals, on the other hand, pay a fixed sum per annum (usually 2 %) for redemption. This means that their indebtedness gradually decreases, so that the sum due each year for interest becomes less.

It follows that, at the beginning, private individuals are forced to ask a higher rent than associations and communes ; after a time, however, they are in a position to reduce it.

The following statements give some idea of the effect of management by associations.

Statement I relates to an estate of about 400 dwellings in large blocks of flats erected in 1933-34 by an Amsterdam building association.

Statement II deals with an estate of about 100 single-family houses built by an association in a small provincial town in 1934-35.

Statement III concerns very simple dwellings built in 1934 for the very poor inhabitants of the peat districts.

All the figures represent the costs of management of one dwelling.

Statement I.

	Florins	%
Annual instalment of building capital : 2,400 florins		
at 4.655 %	111.72	38.8
Ground rent	65.—	22.6
Taxes :	Florins	
Land tax	16.—	
Road dues	12.—	
Fire insurance due	2.—	
	<u>30.—</u>	10.4
Water consumption	22.—	7.7
Fire insurance	1.—	0.3
Upkeep	37.—	12.8
Management	10.—	3.5
Loss of two weeks' rent while unoccupied	11.06	3.9
Total costs of management :		
Per annum	287.78	100
Per week	5.53	—

Statement II.

	Florins	%
Annual instalment of building capital : 2,040 florins at 4.655 %	94.96	53.1
Annual instalment on account of purchase price of land : 480 florins at 4.223 %	20.07	11.2
Taxes :	Florins	
Land tax	13.—	
Road dues	<u>6.50</u>	
	19.50	10.9
Fire insurance	0.85	0.5
Upkeep	29.—	16.2
Management	7.50	4.2
Loss of two weeks' rent while unoccupied	<u>7.—</u>	<u>3.9</u>
Total costs of management :		
Per annum	178.88	100
Per week	3.44	—

Statement III.

	Florins	%
Annual instalment of building capital : 1,260 florins at 4.655 %	58.66	52.0
Annual instalment on account of purchase price of land : 300 florins at 4.223 %	12.67	11.3
Land tax	8.10	7.2
Fire insurance	0.75	0.7
Upkeep	23.—	20.4
Management	5.—	4.5
Loss of two weeks' rent while unoccupied	<u>4.35</u>	<u>3.9</u>
Total costs of management :		
Per annum	112.53	100
Per week	2.17	—

Chapter XVI.

FINANCING OF THE BUILDING OF DWELLINGS.

It is left to private initiative, without the intervention of the authorities, to provide for the building of dwellings required by persons of adequate means.

Most buildings are put up in this way.

The following table shows the number of dwellings which have been put up since 1921 on new building land :

Year	Number of dwellings on new building land	Number built by private individuals	Percentage of dwellings built by private individuals
1921	40,364	14,743	36.5
1922	45,496	24,936	57.0
1923	43,132	27,999	65.0
1924	46,712	34,295	73.5
1925	47,190	34,552	73.0
1926	48,833	41,068	84.0
1927	50,246	42,617	84.5
1928	47,335	40,558	86.0
1929	47,347	39,820	84.5
1930	51,501	44,024	85.5
1931	50,581	41,226	81.5
1932	42,014	36,129	86.0
1933	44,425	42,703	96.0
1934	52,600	47,684	91.0

From 1926, the year in which private individuals began to build without financial assistance from the public authorities, the proportion of dwellings put up by private persons has been 86.5% of the total number.

The mortgage banks supplied the necessary capital in the first place. These banks are financial establishments which obtain capital by the issue of bonds negotiable on the Stock Exchange, known as mortgage bonds. At the present time, they bear interest at an average rate of 4%.

The banks employ the funds thus obtained to grant first mortgages to building contractors at a rate of interest at which the difference between this interest and the interest on the mortgage bonds covers the working expenses of the bank, plus a profit.

The difference in question usually amounts to about $\frac{5}{8}\%$. At the present time, first mortgages are granted up to about 60% of the estimated market value of the bonds. The rate of interest varies from $4\frac{1}{2}\%$ to $4\frac{3}{4}\%$.

Other bodies issue first mortgages in addition to the mortgage banks, usually on the same conditions as these banks. Mention may be made of life insurance companies, savings banks, pension funds, etc.

Part of the additional building capital is supplied by the contractor himself in cash or labour; the remainder must be secured by the contractor through a second mortgage.

The latter is obtained from special banking establishments, usually on more onerous conditions — that is to say, at a higher rate of interest and against greater cover. These conditions are, however, justified by the risk attaching to second mortgages.

As early as 1924, the Government began to grant second mortgages for the erection of working-class dwellings. They might amount to a maximum of 20% of the building costs and not more than 600 florins per dwelling. The amount of first and second mortgages together might not be more than 85% of the building estimate.

The risk of loss was borne half by the State and half by the commune concerned.

These regulations were cancelled in 1934 and replaced by new regulations, the chief object of which was to ensure the erection of the necessary dwellings at low rentals.

The old regulations related to the building of working-class dwellings in the widest sense. In view of the large number of empty houses, even at low rents, it is no longer necessary for the State to grant mortgages for the building of large groups of working-class dwellings. The new regulations on second mortgages consequently deal only with working-class dwellings at the lowest rentals.

In order to ensure that the necessary number of working-class dwellings at a suitable rent are built, the regulations provide that second mortgages may be granted up to 30% of the value of the completed building (including the value of the land if included in the property). It is understood, however, that this second mortgage, together with the first mortgage obtained elsewhere, may not exceed 90% of the above value. In addition, the amount is restricted to 700 florins per dwelling on leasehold land, and 900 florins if the land is freehold.

The rate of interest on second mortgages of this kind, which are granted for a maximum period of ten years, is 4%.

If the first mortgage is redeemed at 2 % per annum, the second mortgage need not be amortised.

If the building costs of dwellings of this kind on leasehold land are estimated at 2,250 florins, the sums payable per annum in respect of interest and redemption will be as follows :

<i>First mortgage, 60 % :</i>	Florins
Interest : 1,350 florins at 4¾ %	64.125
Redemption : 2 %	27.—
 <i>Second mortgage, 30 % :</i>	
Interest : 675 florins at 4 %	27.—
 <i>Own funds, 10 % :</i>	
Interest : 225 florins at 5 %	11.25
Total	129.375

This represents exactly 5¾ % of the total costs of building estimated at 2,250 florins.

Advances under the housing law may be obtained for the erection of simple working-class dwellings by building associations.

These advances may cover the whole cost of building ; the rate of interest is at present 4 %.

Advances for the purchase of land must be redeemed in seventy-five equal annual instalments, and advances for the cost of building the dwelling in fifty equal annual instalments. These annual instalments amount, at 4 % interest, to 4.223 % and 4.655 % respectively.

The following table shows the number of dwellings for which advances have been granted since 1921 under the housing law :

Year	Amount advanced	Dwellings built by		Total dwellings
		Associations	Communes	
	Florins			
1921	199,481,170	19,213	3,595	22,808
1922	44,034,733	4,735	1,832	6,567
1923	24,857,631	3,698	2,828	6,526
1924	10,269,719	1,553	1,110	2,663
1925	8,945,845	1,032	1,173	2,205
1926	5,824,904	—	—	1,200
1927	12,543,995	—	—	2,341
1928	14,854,038	1,979	1,219	3,198
1929	17,126,100	—	—	4,639
1930	18,130,086	2,552	1,362	3,914
1931	8,586,951	1,963	909	2,872
1932	3,352,618	767	320	1,087
1933	9,616,507	—	—	—
1934	4,746,781	1,417	94	1,511

Whether there is a second mortgage on the building or it is put up by means of advances under the housing law, the cubic content of dwellings as fixed by the outside walls above ground-floor level must not exceed :

250 cubic metres for single-family houses ;

225 cubic metres for buildings consisting of a ground floor and one story (buildings with two floors) ;

200 cubic metres per story for buildings with more than two floors.

This last figure does not include 20 cubic metres per flat allowed for storage space.

Owing to the large number of cheap dwellings required, those put up with the assistance of advances under the housing law (for which, therefore, no contribution or supplement is charged in the rent) are let primarily to families whose income is not more than four or five times the rent fixed.

Although this proportion cannot be regarded as general in the Netherlands, the associations — which play their part in social work inasmuch as they provide the necessary dwellings for the less well-to-do classes — make use of it in allocating dwellings. They allocate dwellings to families with a higher income only after all applications from persons belonging to the first category have been dealt with.

In addition to advances from the State, contributions may be made to cover any deficit in management, but usually only for dwellings put up to replace slums.

The deficit on the management of these dwellings must not exceed 50 florins per annum. Half this deficit is borne by the State and the other half by the commune concerned.

These regulations apply to leased dwellings. They are usually built by the commune, which charges a reduced rent to tenants formerly living in the slums.

To qualify for a contribution, a number of dwellings equal to the number for which the subsidy is claimed must be declared unfit for habitation or evacuated. In special cases, financial assistance may also be obtained for the evacuation of temporary shelters, caravans, boats used for dwellings, huts, etc.

The following table shows the number of dwellings for which financial assistance has been granted under these regulations :

AMOUNT GRANTED FOR EVACUATION OF SLUMS.

Year	Number of dwellings	Annual contributions by the Treasury
		Florins
1925	431	15,643.—
1926	1,026	25,464.—
1927	1,795	53,436.—
1928	1,102	29,544.—
1929	1,069	29,841.—
1930	1,771	54,811.—
1931	1,714	46,927.—
1932	424	6,192.—
1933	—	16,024.—
1934	449	7,690.43

In many communes, particularly in the country, but also elsewhere, it is not customary to let dwellings. Most of the inhabitants live in their own dwellings. Even slums and properties in complete disrepair often belong to the occupier.

It has therefore been found necessary to lay down rules to enable slums to be replaced by new dwellings also belonging to the occupier. In such cases, an inclusive subsidy is preferable to an annual subsidy.

The regulations empower the Treasury to grant an inclusive subsidy for the evacuation of slums in rural communes and in rural areas of other communes up to a maximum of 300 florins per dwelling. The commune is required to contribute the same amount.

In addition to these subsidies, an advance may be granted to make up the necessary capital after deduction of the subsidy. Advances of this kind are repayable in thirty equal annual instalments.

The following table shows the number of dwellings for which financial assistance has been granted under these regulations :

AMOUNT GRANTED FOR EVACUATION OF SLUMS.

Year	Number of dwellings	Inclusive subsidies paid by the Treasury
		Florins
1928	44	13,150.—
1929	25	7,500.—
1930	17	4,250.—
1931	22	6,585.—
1932	35	11,325.—
1933	—	6,542.50
1934	—	2,275.—

Chapter XVII.

FIXING OF RENTS.

A fundamentally important question is how the rent for houses built with the aid of advances under the housing law system should be fixed.

From the outset, views were divided on this point.

Some recommended that rents should be fixed as low as possible in order to improve housing conditions. Others argued that this would mean the granting of a privilege to present tenants, and could not have any good effect on the estate market. Those who held the latter view believed that the dwellings should be let at normal rents fixed by agreement. The associations might perhaps make some profits in this case, but that would be an advantage, because their financial situation would thereby be strengthened and they could thus improve dwellings out of their own funds. The Government decided in favour of the second course, and required the building associations applying for recognition to insert a "rent clause" in their statutes. Under this clause the associations undertook to fix the rent in each case by agreement with the interested party.

This clause is worded as follows :

"The management of the association shall let dwellings at a rental similar to that paid for like dwellings in the same part of the commune, except in the case of tenants who, as a result of steps taken to improve housing conditions, have been deprived of their habitation and are not in a position to pay the whole rental of a suitable dwelling."

Many associations do not comply with this clause. Some manage estates built cheaply before the war, and simply fix rents in such a way that the management accounts merely balance, even though it would be possible for them to obtain higher rentals. Certain associations are convinced that this policy is not in keeping with their mission, seeing that, in the opinion of the framers of the law, associations need considerable reserves in order to carry out their task. When the managing body of an association, either through fear of its members or for some other reason, follows a

policy that serves the self-interest of the members and consequently leads to the fixing of rents at too low a level, the only remedy in the last resort is to withdraw recognition. This step has, indeed, been taken in several instances.

The sound policy followed by the Government in respect of rents immediately after 1901 was abandoned when, during the last years of the war, building costs rose to such a height that private individuals ceased to build, and the only way to counteract the housing shortage was to build dwellings under the housing law. Owing to the very high level of building costs, it was no longer possible to make management accounts balance, nor was there any longer a basis of comparison for the fixing of rentals. During this period, the public authorities granted huge subsidies every year. In order that these contributions should not exceed the level warranted by the tenants' income, individual rules were laid down. The maximum amount of the subsidy was fixed at a given percentage of the management costs, it being understood that the surplus must in every case be covered by the rents. When the tenants' income allowed them to pay a higher rental, they were to do so.

An exception was allowed in the case of the occupants of evacuated slums who were not in a position to pay a normal rental.

The system of fixing rents individually was very unsatisfactory and caused numerous difficulties. Nevertheless, as a whole it spared the Treasury useless sacrifices.

Since 1923, owing, in particular, to the revival of private building, the authorities have reverted to the policy formerly followed in the matter of rents. This revival of private building has made it possible to re-establish an estate market and determine rent-values. Complete freedom was only restored by the Royal Decree of January 18th, 1927, which abrogated the "rent law" (Rent Commission Law, Law on Termination of Rent, Law on Notification of Rent) and allowed owners to fix their own rents.

Dwellings built with subsidies under the housing law system which, at the outset, were also subject to regulation by rent commissions, had already been withdrawn from the jurisdiction of these commissions by a previous amendment of the law. Some commissions had shown a tendency to maintain rents at a very low level, the result being that an organisation having no financial responsibility obliged the public authorities to grant higher subsidies than were necessary.

The system of fixing rents individually and granting maximum subsidies during the years when prices were mounting left, even after payment of the maximum subsidies, deficits which had to be met by the communes. This charge became heavier still when the slowing-down of economic activities led to a fall in rentals, particularly in the country. In these circumstances, it was very

difficult to pursue a sound rent policy. Following on these circumstances and other founded or unfounded complaints by building associations, a commission was set up to consider means of avoiding these difficulties and complaints.

No action was taken to comply with this commission's report, which includes majority and minority findings, because the Treasury could not have supported the expense which the acceptance of the recommendations would have involved; this is at all events the case as regards the principal measures recommended. As, for the last few years, the country has been passing through an economic depression and the reduction of wages has to a great extent become inevitable, the Government has decided to encourage as far as possible the policy of reducing the rent of dwellings built under the housing law and the building of houses that can — and, indeed, will — be let at low rentals. In this respect the commission's report has been acted upon, by lowering to 4 % the interest on advances made under the housing law, which previously bore interest at 6 % on several tens of millions and 5 % on an even greater sum. The lowering of interest was intended primarily to permit a reduction of rents wherever necessary.

Chapter XVIII.

THE WAGE FACTOR IN THE COST OF A DWELLING.

Full particulars of the wage factor can be given for a building put up by the Zomers Buiten Association of Amsterdam. This scheme, which comprises 404 dwellings, was completed between January 16th, 1933, and April 21st, 1934 — that is to say, in 460 days.

From this figure should be deducted :

64 Sundays
 10 holidays
 71 days' strike
34 days on which work was prevented by weather

Total 179 days.

There remained 460 — 179 = 281 working days, consisting of :

217 full eight-hour days, or 1,736 hours of work ;
 64 Saturdays of five hours,
 or 320 hours of work.

The whole building was
 therefore put up in . . . 2,056 hours.

The following table shows the total number of hours worked by the various classes of workers :

	Hours worked		Hours worked
Carpenters	123,746	Cement workers	19,141
Masons	64,928	Excavators and pile-	
Pointers	9,264	drivers	19,227
Plumbers	10,772	Auxiliary labourers	16,679
Electricians	8,235	Artificial-granite	
Painters	57,506	workers	6,744
Plasterers	50,443	Paper-hangers	3,590
Bricklayers' labourers	46,443	Apprentices	22,342

The number of hours of work per dwelling is therefore as follows :

	Hours		Hours
Excavators and pile-drivers	48	<i>Brought forward</i>	882
Auxiliary labourers	41	Artificial-granite workers	17
Masons	161	Painters	142
Bricklayers' labourers	116	Paper-hangers	9
Pointers	23	Plumbers	27
Cement workers	47	Electricians	20
Carpenters	306	Apprentices	55
Plasterers	140		
<i>Carried forward</i>	882	<i>Total</i>	1,152

For a week's work, the legal maximum being forty-eight hours, the wages per hour fixed by collective contracts are as follows :

	October 1st, 1932, to October 1st, 1933	October 1st, 1933, to March 1st, 1935	Since March 1st, 1935
	Cents	Cents	Cents
Excavators	69	65	62
Masons	74	70	67
Bricklayers' labourers	69	65	62
Pointers	74	70	67
Cement workers	74	70	67
Carpenters	74	70	67
Plasterers	85	80	80
Plasterers' labourers	80	75	75
Artificial-granite workers	73	70	70
Painters	69	65	65
Plumbers	74	72	72
Stone-cutters	76	72	72

The following wages were paid on a similar building estate developed at Amsterdam in 1934 :

	Average wages Florins	Maximum wages paid Florins
Excavators	31.37	35.—
Masons	42.50	42.50
Bricklayers' labourers	42.50	42.50
Pointers	47.50	47.50
Cement workers	34.95	40.—
Carpenters	41.25	50.70
Plasterers	45.80	51.—
Plasterers' labourers	47.—	47.—
Artificial-granite workers	31.75	40.—
Painters	37.20	40.—
Plumbers	36.—	36.—
Electricians	26.35	32.64

There is no need to dwell at length on the effect of the wage factor on the cost of building a dwelling.

It is, of course, possible at a given moment to analyse the various items the total of which represents the price of a dwelling. In this way an idea may be obtained of the effect of wages in the various trades on the total building costs.

These data, however, apply only to a given dwelling at a given moment. In view of the present social instability, prices constantly fluctuate. The cost of certain materials rises, while the cost of others falls. Wages are still tending to fall.

There is, therefore, very little to be gained by stating a fixed sum for wages per dwelling, since the amount is constantly varying.

We would simply point out that the effect of wages on building costs as a whole has decreased considerably in recent years, owing to the spread of rationalisation.

Although wages have fallen relatively little during recent years as compared with the cost of materials — only about 15% — whereas materials have fallen to pre-war prices or even lower — the proportion between wages and materials is still almost the same as before 1914. The explanation is that the number of hours worked per dwelling is gradually falling.

The following extract from a report by the Amsterdam Health Commission gives some information on this subject :

“ The work of those engaged in the building trade is being increasingly confined to assembling parts already manufactured elsewhere.

“ Thus, most of the joinery work is done in factories with very modern equipment, often situated in places where wages are far lower than in Amsterdam. A number of professional corporations submitted interesting data on this subject to the Supreme Labour Council in March 1933. We will mention only a few of these figures.

“ While in 1910 a carpenter still put in 873 hours on a working-class dwelling, the corresponding figure in 1931 is only 341½ hours.

“ There is also an appreciable falling-off in the other trades, the reasons being, among others, increasing specialisation, changes in the use to which materials are put and the growing mechanisation of the building trade, in which there is still room for considerable changes in this respect, as compared with other branches of industry.

“ On the basis of the figures given us, it may also be said that, if the building costs of a working-class dwelling are estimated at about 2,500 florins, this includes only from 800 to 900 florins for wages paid in the building-yard itself.”