

The Country Manufacturing Plant
A Solution of one aspect of Housing the Poor.

Phil. V

Dura Dec. 16. 1902

Earl C. Davis.

(Salbot Mills: North Billerica, Mass.
G. F.)

Housing of the Poor.

It is not a mere assertion to say that the problem of "Housing the Poor" is one of vast importance. A visit to any city, or even to small villages indicates that at least a portion of the people live in conditions which would not be satisfactory to the self respecting person of extremely moderate means. Mr. Jacob Riis' book "How the Other Half Lives" pictures a condition which impresses upon one the underivable condition of the people of the New York City. I have some words sum up of the whole condition in these sentences from his book "The Making of an American." Speaking of the condition of the poor in certain sections of New York City he says:—"The trouble was people did not know and had no means of finding out for themselves. But I had. Accordingly I went poking about among the foul alleys and foul tenements of the Bowery, when they slept in their filth, sometimes with the policeman on the beat, more often alone, sounding the misery and deplavity of it to their depth."*

Mr. F. Spencer Boldwin speaking of the same problem from another point of view says:

"The Making of an American" by Jacob Riis
Page 236.

The result of these influences (industrial and economic) has been the continuous and rapid growth of the great cities. This has forced upon the municipalities a multitude of difficult social problems. Among these ^{problems of} the housing of the poorer classes recently and chiefly stands first in importance.*

The importance of the problem comes to assume greater dimensions when one considers to what extent it may be regarded as the central question about which the problems of intemperance, vice, and crime grow themselves. Mr. Riis shows the line between "his half" and the "other half" by the unlocked door. The family whose door is always open to whoever may come is thereby classified with the "other half." The evils of such lack of privacy, such lack of restraint are obvious. Mr. W. J. Cole in "The City Mildew" says:- Tenement house life in general, except the tenements of the highest grade, can hardly escape what is mean and low. In many cases the familiarity shown by children of the tenements with men of all descriptions is extremely shocking.†

* Page 3. A study of Tenement Reform in Cities. by F. Spencer Baldwin.

† Page four of same.

The influence of the association of young people with those of evil tendencies, works just as strongly for evil, as ~~does~~ the influence of our teachers and charity people works for good. It is the pressing question of charity.

In Boston, even, the condition is urgent, although less urgent than in any of the larger cities. Mr. W. J. Cole of the South End House says: "There is no great objection in Boston. We do not find such conditions here as have been found in other cities such as New York and Chicago. While the problem is here, it does not need the immediate action as required in other cities."*

While we have this statement from no less an authority than the head of the South End House, yet the question presses even in Boston. The lower tenement block I examined from the outside a block. From rough measurements I found the block to be about 800 feet long, by one hundred feet wide. At no place was there any space between the houses. Whatever of open air space there may have been within the outer wall of houses placed one next to the other, there was no way of getting to it, except by

Said in conversation at South End House

way of dark and filthy foulage ways from the street to the inner court or well. From the outside it presented one solid ~~of~~ brick wall. Most of the basement tenements showed signs of being occupied. The streets were narrow, and swarmed with children. There was no opportunity for safe recreation for them to say nothing of the filth in which they were flinging.

In the fall of 1901 the Health Department (of Boston) ordered a comprehensive examination of all tenement houses in the city. A compilation of the reports of ~~26~~²⁶ tenement houses in 20, Margin Street, in the West End reveals the following situation:-

Tenements reported upon 118, containing 350 rooms. In these rooms 540 persons are living, though the number allowed by law is only 446. Of the 197 bed rooms, 97 contain less than 600 cubic feet of air space; 35 of the bed rooms are dark rooms. Thirty three of the tenements are reported as overcrowded; six of houses are said to have defective drainage; sixteen have cellars that are damp or filthy or both; eleven yards are in bad condition. Nineteen out of 20 garbage receptacles are reported as defective or insufficient, or both. Seventeen out of 67 water closets are in bad condition. The name of the owner

is forced in ~~but~~ only nine of the 26 buildings.*
 It is evident from these interesting facts that even Boston has its problem. Each house reported upon would average 20.8 persons ~~for~~
 Each house would contain 4.5 tenements. Each tenement would average 3 rooms. Now the conditions presented would be that each tenement of 3 rooms must offer shelter for 4.6 persons, and 2.6 persons for sleeping room. These facts added to reported conditions of sanitation show the need of some remedy.

There are two direct problems involved here in relieving these congested conditions. The old and crowded houses must be replaced but in replacing them, a certain portion of the land must be reserved as a sort of a self supporting "Fresh-air Fund". So the first step is to dispose of the old buildings. The Board of Health has been very effective in bringing about this kind of work. In the year 1900, the number of houses ordered vacated 274; number ^{of houses} actually vacated 75; number of houses ordered removed 56; number of houses actually removed 39;*

These figures are taken from a report to

* From U.S. of chapter on "Housing" for "Americans in Process" about to be published by Houghton & Mifflin. In case "Tenement House Conditions" Library of 20 Cen. Club, Boston.

Mr. E. H. Chandler, of 20th Century Club of Boston signed by Mr. Jordan, Chief of Inspector, Boston Board of Health, and dated Feb. 26, 1901.

This is the destructive side of the process. The constructive side is shown by a reference to the work of the incorporated societies which represents one method of building good houses. These incorporated societies are working in a small way, the oldest, the Boston Co-operative Building Company, chartered in 1871. With a capital of \$292,000, it has about \$400,000 invested in seventy-eight rooms houses with 985 rooms, occupied by 311 families, ~~occupied by 311 families~~, containing 1,023 persons.

The Harrison Ave. group of twenty-four three storied brick houses - each, except the corner, arranged for three families - has attracted deserved attention, with its hollow square in the centre, tastefully arranged as a play ground for the children, and a bit of beauty for the parents.*

There still remains the problem of providing for those who are forced out of the congested district. To simply relieve one block and

* The Housing Conditions of the in Boston, by Robert Leet Payne. The Ann. of Am. Acad. of Pol. Sci. 1902. Page 125.

wake up provision for those who represent the overpopulation but help solve the problem. It is evident that this aspect of the question must find its solution connected in some way with the country. In Boston for example a large section about Dorchester and Roxbury has been freed from this overflow.

The following figures show the nature of this movement. Dorchester and West Roxbury have shown great gains in population since 1895, and a large number of small houses have been built in those sections. But it still remains true that Ward 8 of the West End increased in population during the same period faster than any other section of the city, except the two suburbs named. It now has the distinction of containing the largest number of persons per acre, 173.6; Ward 9 in So. End ranks second with 132.2, and Ward 6, Third with 104.3. The relation of growth of these two wards may be shown as follows, -

	1895	1900	
Ward 6	27,860	30,546	} persons increase, or?
Ward 8	<u>23,130</u>	<u>28,817</u>	
	50,990	59,363	

The same figures for Dorchester and West Roxbury are as follows: -

	<u>1895</u>	<u>1900</u>
Wards 20+24 } Dorchester }	39,768	59,682
Ward 23 } Roxbury }	<u>18,283</u> 58,051	<u>27,637</u> 83,319

Let it be noted however that the acreage of Dorchester is 5590, and of West Roxbury is 7660. There were then in 1900 only 10.6 farms to the acre in Dorchester as compared with 104.3 in the North End, and 3.1 farms to the acre in West Roxbury in contrast with the 173.6 of the West End."*

These figures seem to indicate for one reason or another the tendency to take up houses in the suburban districts is not so strong as might be desired. One reason for this may be the attraction for the city life in its forms, or to put it the other way ~~too~~, a repulsion for the extreme quiet of the suburban life. But again when one considers that it takes nearly an hour on each end of the day to travel to and from these places to work in town, ten hours for day of labor and one hour for the noon recess, it becomes apparent that here is a serious objection to this system as a complete

U.S.S. of Charters on "Housing" for "Americans in Power" 20th Century Club. Boston.

solution of the problem.

There remains another means of relief, viz. the country manufacturing plant, where the plant and the owner of the business make a complete village by themselves. The advantages and possibilities of this system will appear in the following description of the Talbot Mills, North Billerica, Mass.

When one considers, and tries to discover the efficiency of such a system as the one mentioned, it is necessary to take into account, as a first step, the standing of the industry to which the plant represents from the point of view of the wages paid. It is evident that the corporation which, because of the nature of its industry, pays only an average wage of \$364.11 per year, cannot be expected to provide as high a class of tenements as the one which pays an average wage of \$692.57 per year. On the other hand the laborer, ^{who} receives the lower wage cannot live upon such a basis as the laborer who receives the higher wage. Again it must be remembered that that, ~~the~~ if two corporations have the same grade of tenements for its employees, the one which pays the less wage is doing

a relatively better thing by its employees. the question of rent be discarded.

A comparison of the figures in the following table will show the relative position of the women industry as compared with several other industries.

Kind of Industry	Nr. of owners	Total wages.	Average wage per year.	Source of Figures, in 1900 Census
Tin & Sheet Plate	14,826	10,288,061	692.57	Vol X, Page 100, Tab. F
Cars, Steam Railroad.	207,104	113,049,623	545.85	Vol X, .. 157 .. I(?)
Ship Building	46,781	24,839,163	543.78	" 212 .. "
Iron and Steel	222,607	120,836,338	542.27	" 4 .. "
Electric Apparatus & Supplies	40,890	20,190,344	494.01	Vol X, .. 157 .. I
Dyeing & Finishing Textiles	27,776	12,726,316	458.17	Vol IX .. 12 .. I
Flouring & Meat Mills	37,073	17,703,419	477.56	" IX .. 355 .. "
Cloth & Shoes	142,922	59,175,883	414.04	" IX .. 471 .. "
Wool	159,108	57,933,817	364.19	Vol IX .. 12 .. I
Silk	65,416	20,982,194	320.76	" "
Hosiery & Huit Goods	83,387	24,958,627	292.11	" "
Cotton Goods	297,929	85,126,310	285.72.	" "

Out of twelve representative industries we see that struck ninth in average rate of wages paid per year. Therefore in judging the merits of the system to be described, its efficiency must be

* Table made of from figures taken from Census. Column headed "Average Wages" is worked out from other two sets of figures.

judged from what it does with the measure at hand.

It is evident too that the labor required for work in woollen mills is less skilled than in the other industries, for in the long run, and upon the basis of general averages the wages is roughly proportional to the skill of the laborer.

The village of North Billerica, or at least that portion of it which belongs to the Lowell Mills, is small village which has collected about the mills. The general condition is prosperous and healthy. The town of Billerica stands among the first in the state in the low rate of deaths, and has at times stood highest.

The houses owned by the corporation are in general divided into four general classes. They represent in their gradations from lower to higher qualities the evolution of the attitude of the corporation towards its employees. The first class consists of 1 six tenement block and one three tenement blocks, which are the oldest and foremost of the whole system. Class two consists of three six tenement blocks, next higher in quality. Class three, consists of about 20 double

tenement houses of a still better type; and class four consists of 10 houses which show the present attitude of the corporation.

These will be described later.

Every house, with the exception of class I, which are located outside of the village, are connected with a private sewerage system. This was built entirely at the expense of the corporation. It cost the sum of \$30,000. The sewer bed system is used. By permission of the company all school buildings, and many private houses are connected with it.

The L. Howard Tolbot Memorial Hall serves as the center of the social life of the town. The only expense involved in running this building is that involved in repairing expenses. The money which built it, was a gift, and consequently there is no interest money to be paid. This hall is let to residents of the village at a rate which barely pays expenses.

Connected with the Hall is a library of over 3000 volumes. This number is being increased each year. The nominal sum of 50 cents per year is charged for the privilege of looking

out books, one book at a time; a 75 cent membership permits 2 books to be taken out; \$1.00 permits three. The reading room is open to the public.

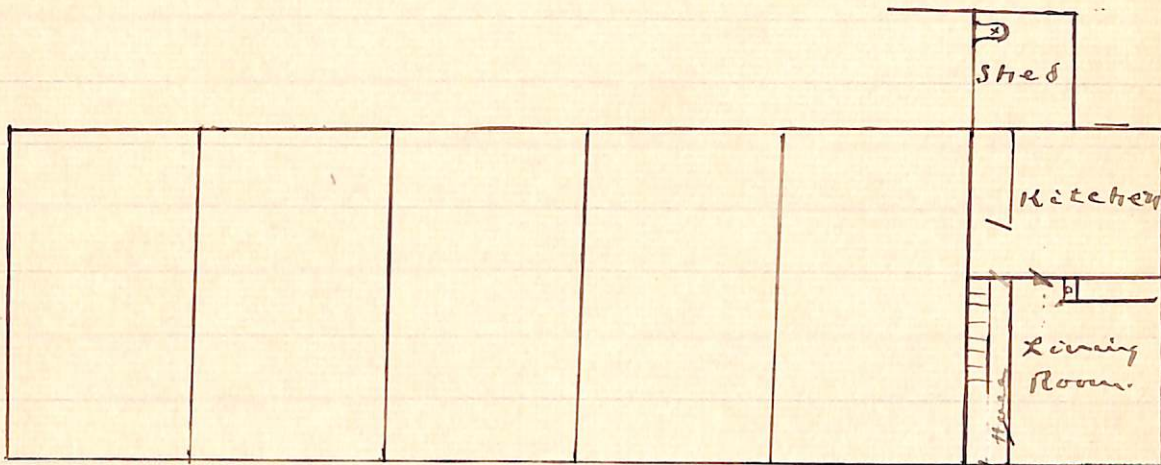
The schools are town schools, with the exception of a kindergarten school, which is run from the income of a fund. The school is free.

This gives a general setting of the town and leads to a study of the four classes of houses.

Of the first class it is only necessary to say that they represent an early type. They are one and one-half story blocks. Each tenement contains a living room and kitchen, and two sleeping rooms, and a cellar. Back of each ~~out~~ house is an out building which contains a wood shed and iring. There are but nine tenements of this class.

Class II consists of eighteen tenements, in three blocks. These differ from the above in that they are connected with the sewer. The old out houses have been replaced by an addition which contains a wood shed, and water closet. The rent of these houses is about four dollars per month. People of the

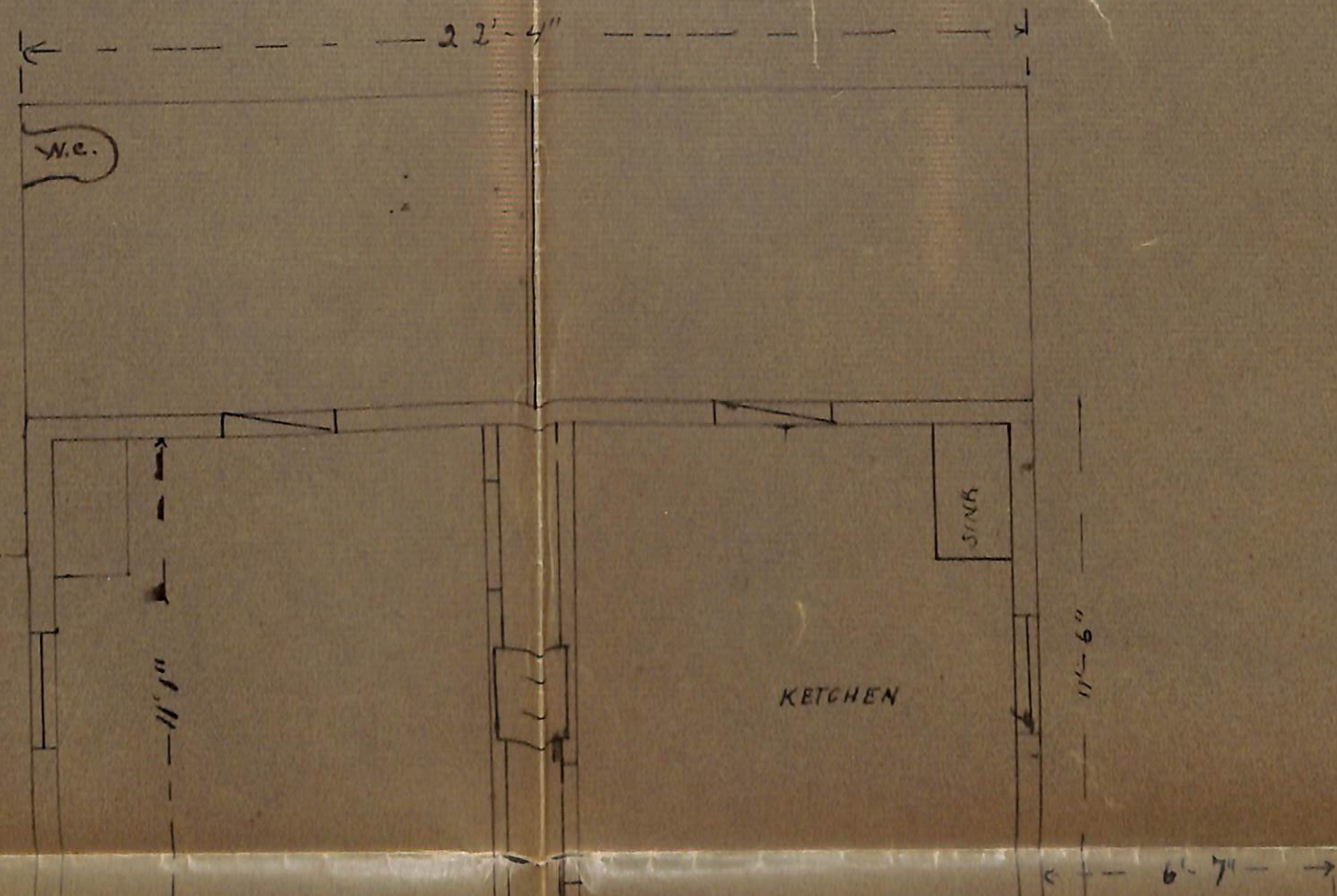
less skilled type live in them, i. e., men who get about \$8.40 per week.

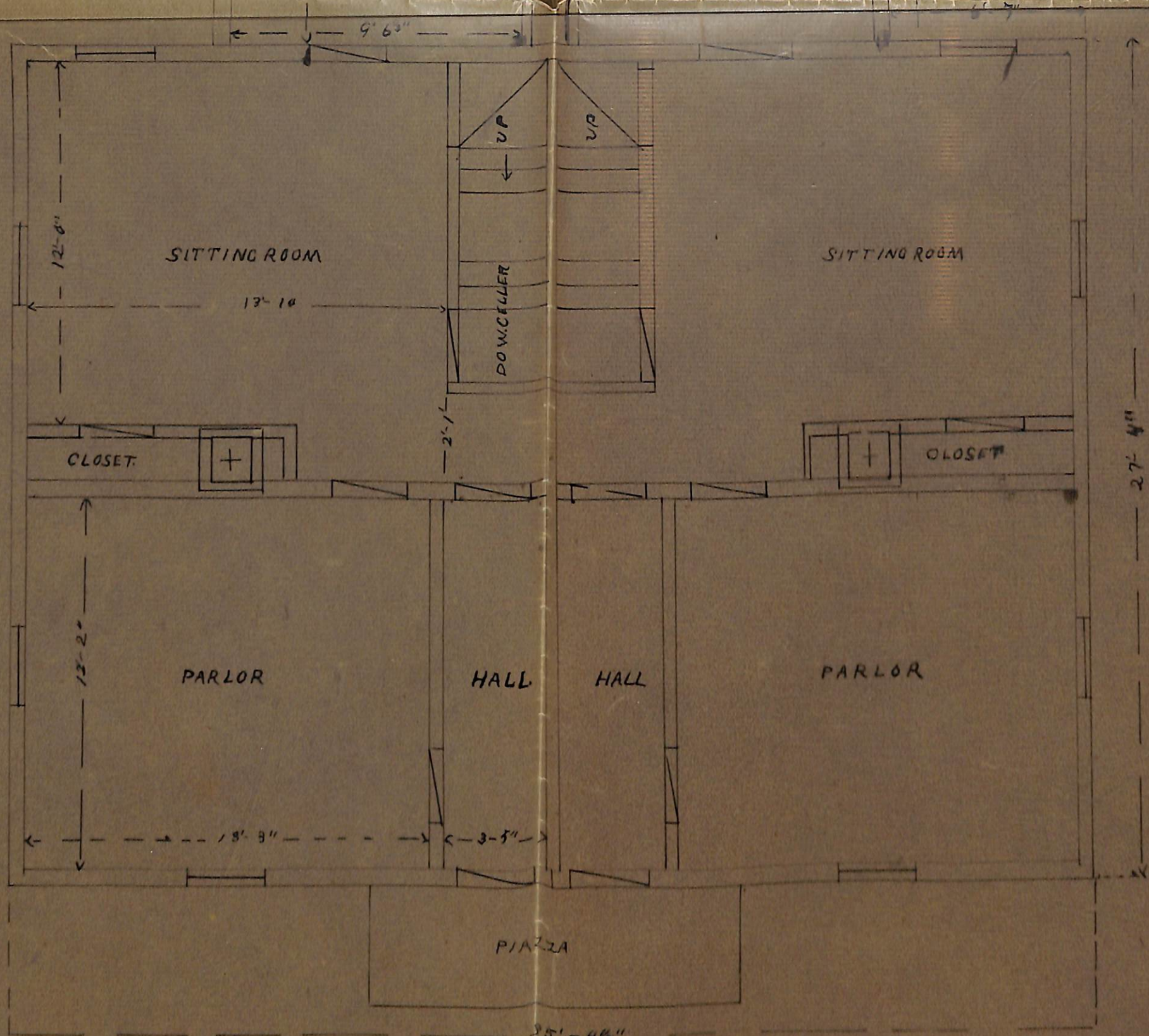


X in shed is water closet. There are two chambers, of some size as corner folding rooms below. I was unable to get the exact dimensions of the rooms in these tenements, but they are about 13 feet long by about 12 feet 6 inches wide.

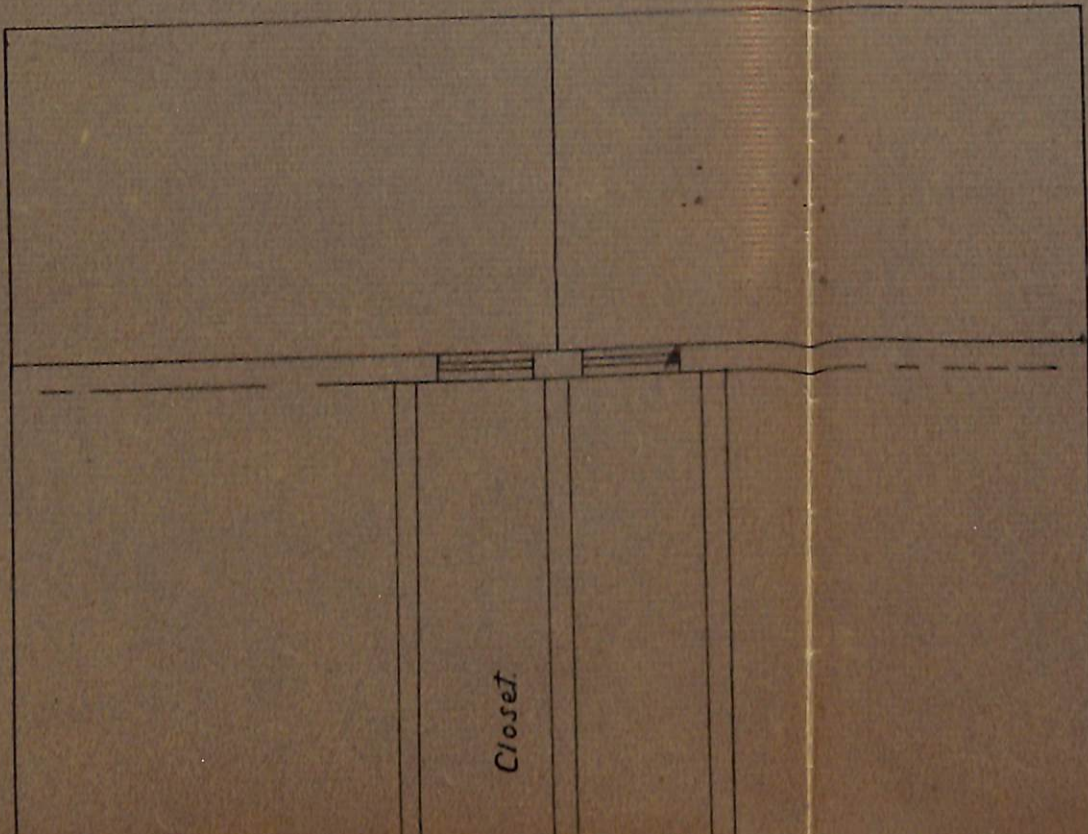
There are in all eighteen of such tenements.

Class III presents us with a much better building, and represents a later period of construction. There are about 20 houses of this type. They follow the same general architecture. Two tenements in each house, entirely separate one from the other. The rent for such houses varies from \$5.50 to \$7.50 per month according to the location, and the condition of the attic. A finished attic costs more than

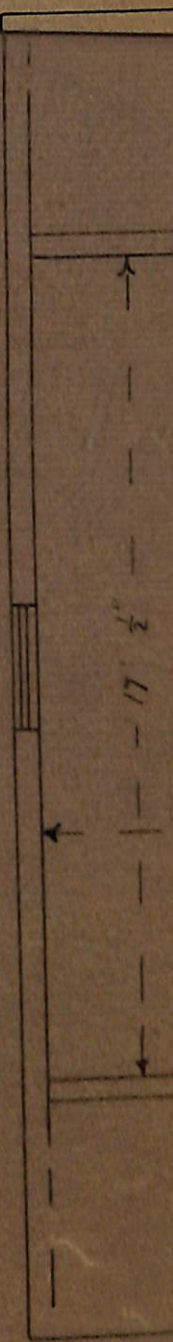
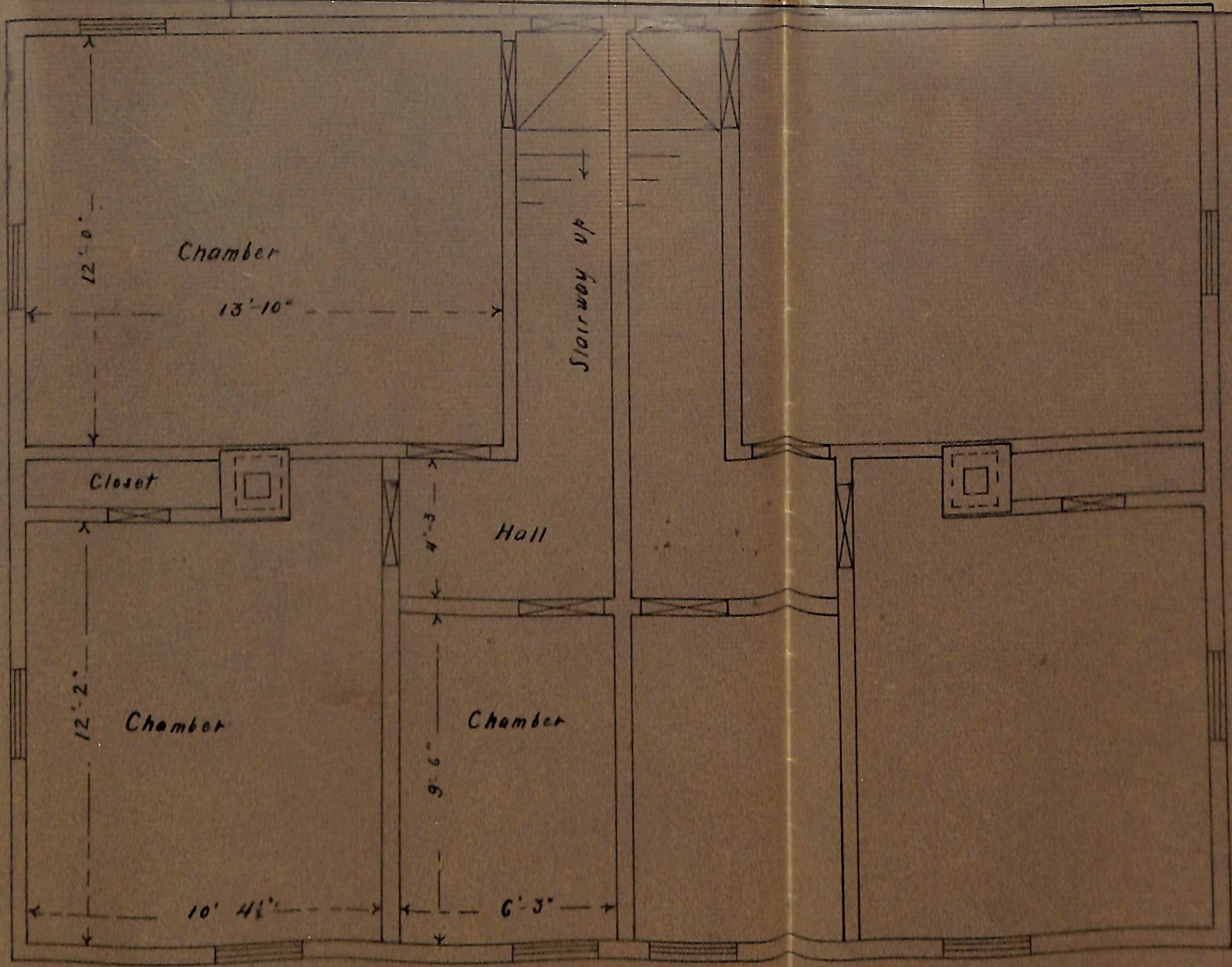




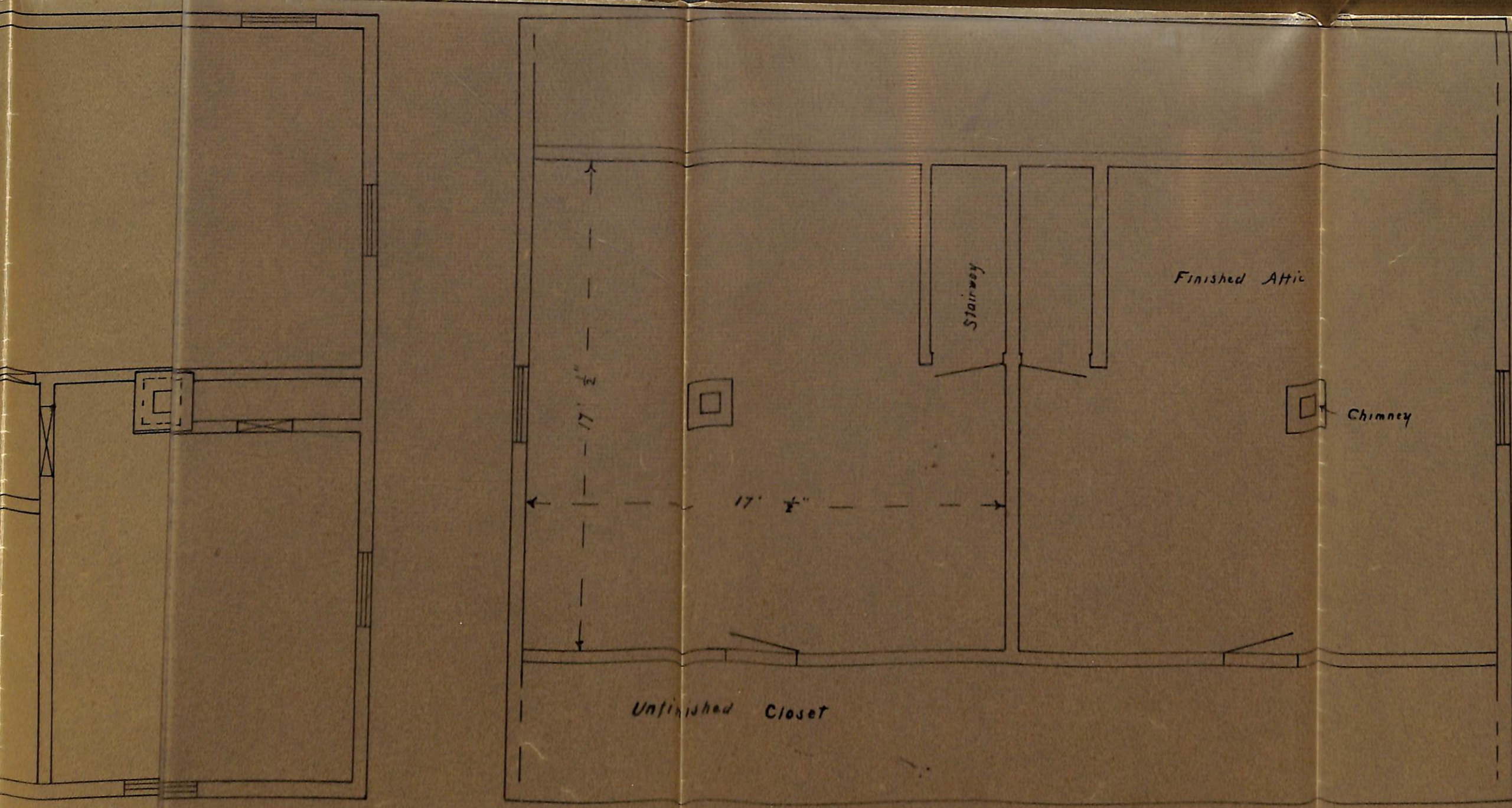
35'-4 1/4"
FIRST FLOOR



Closet



SECOND FLOOR



THIRD FLOOR

The unfinished attic.

Labourer getting from \$9 to \$12 dollars for ~~month~~ week live in these houses, or sometimes labourer of a lower grade, when there is more than one wage earner in the family.

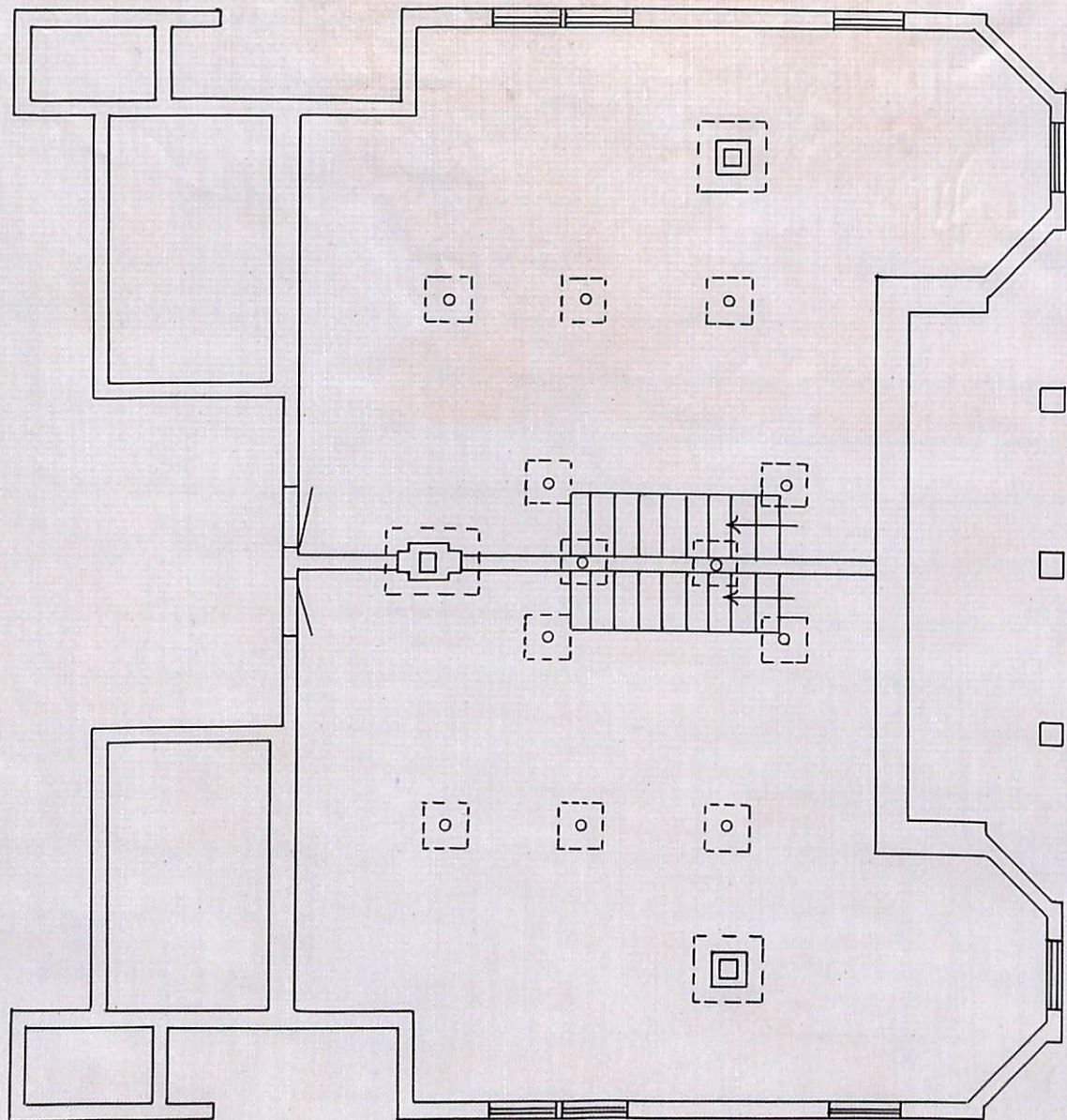
The accompanying plans show the detail of the houses, for the 1st, 2nd & third Floor, there are a few of this type of house which have only 1st & 2nd floor. Each house has a water closet connected with the sewer, also a sink in which there is running water. The water rent is included in the rent.

While these houses are very much alike in architecture, an attempt is made to relieve the monotony by an artistic choice of colors in painting. No two of the houses are painted exactly alike, then too, in as much, as the combinations of colors are all made by one person, there is no striking inharmoniousness in the appearance of the street.

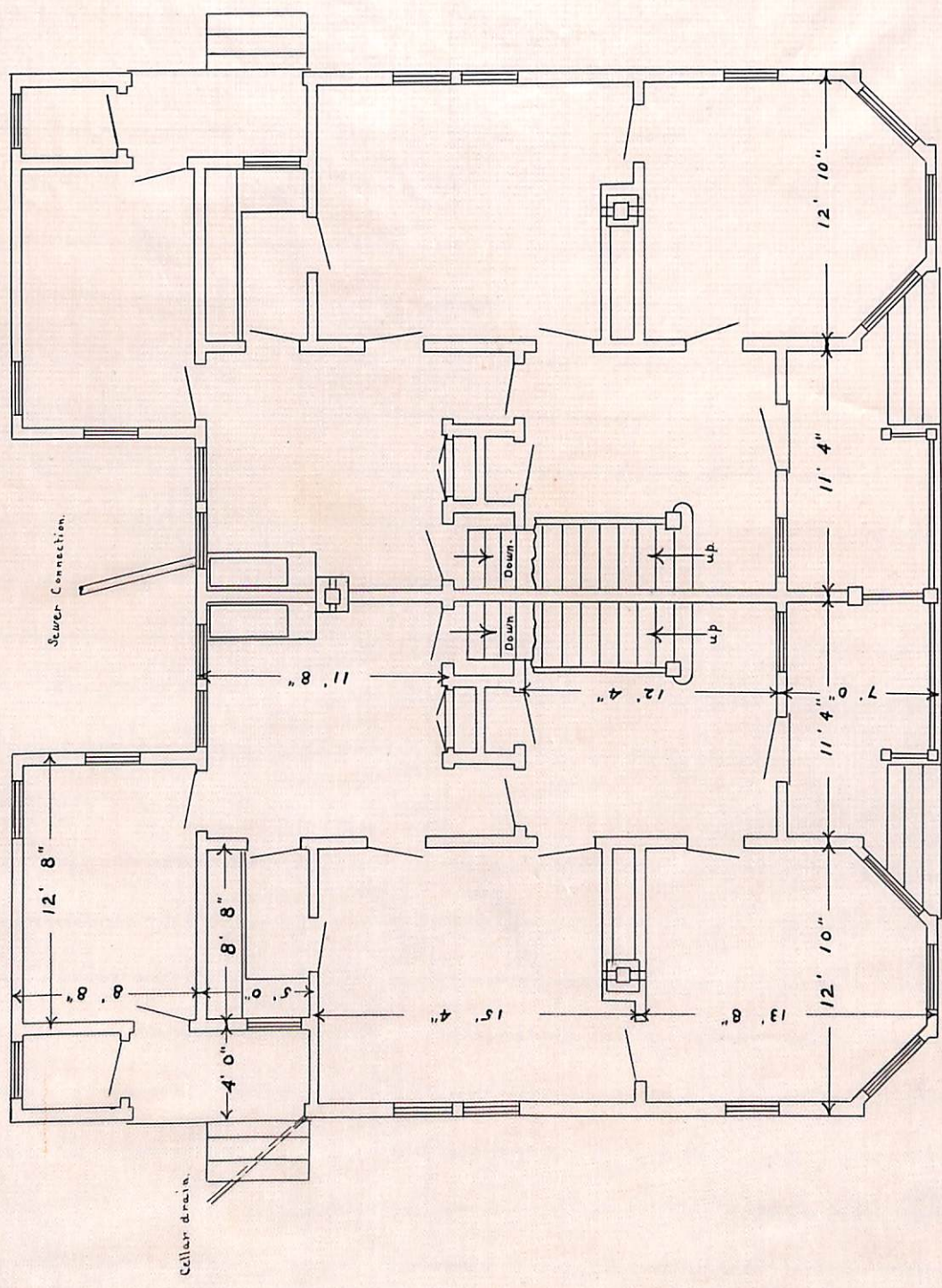
Class III presents the greatest amount of interest. The houses of this class have been built within the last four years. There are ten of them completed and there are others in the process of



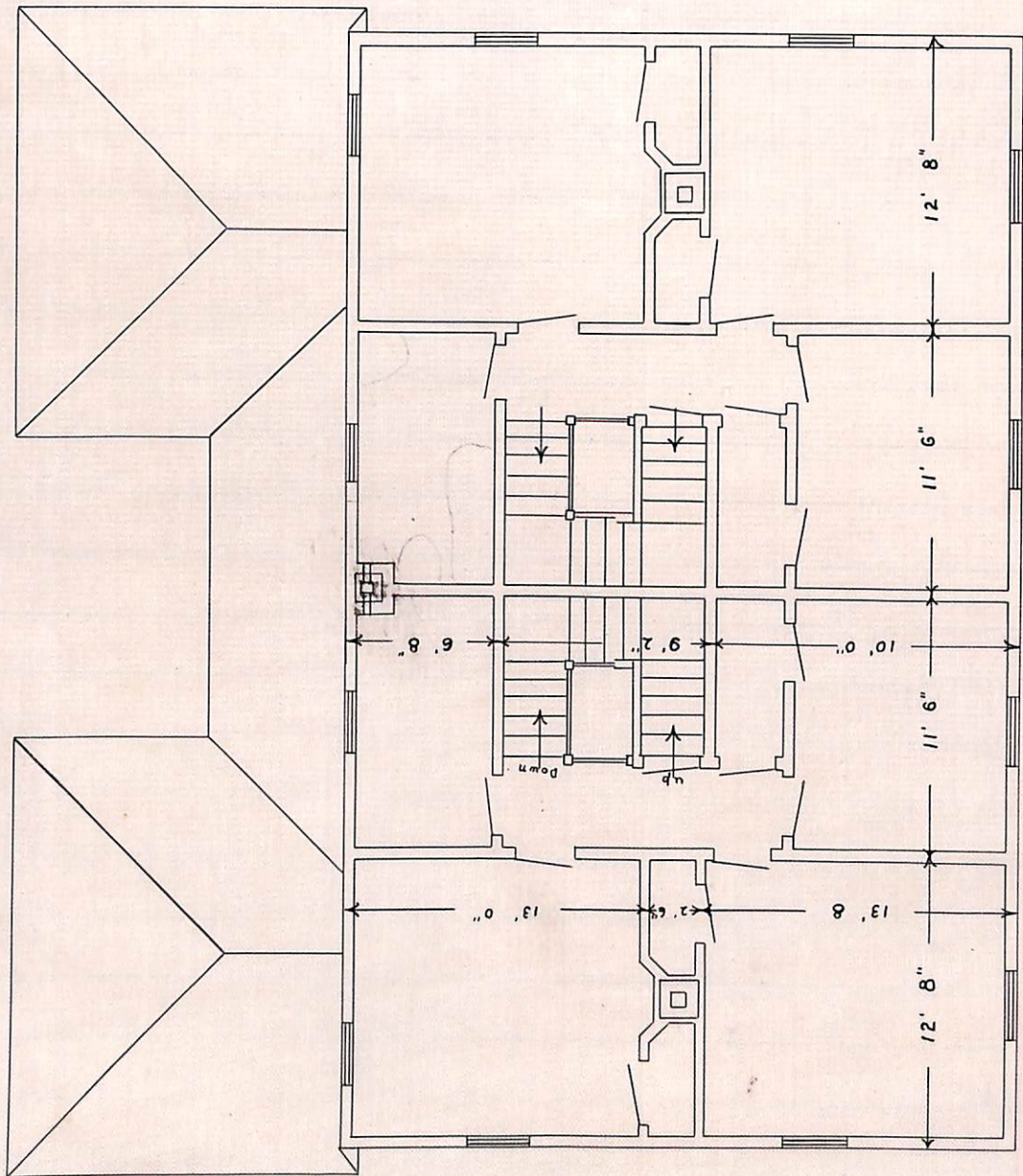
Photograph of house of which the
plans are presented.



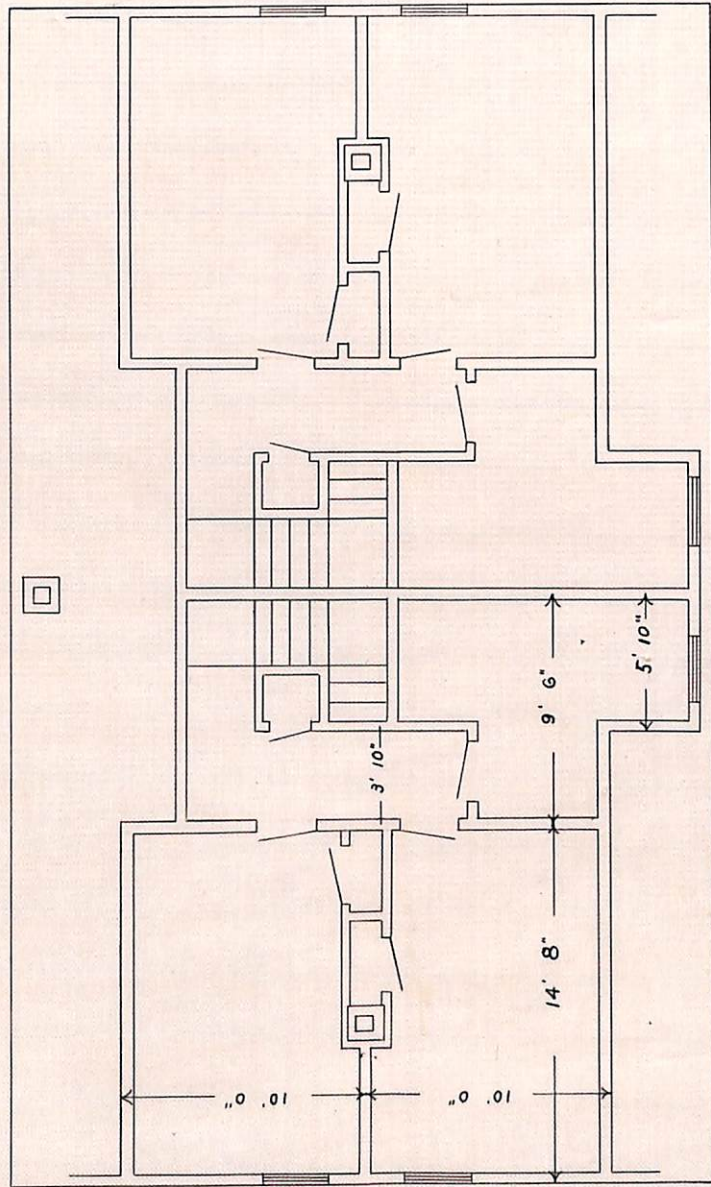
Cellar
Scale 1/8" = 1'-0"



2-4 Talbot Ave. First Floor.
 Scale $\frac{1}{8}$ " = 1ft.



2-4 Talbot Ave. Second Floor.
 Scale $\frac{1}{8}$ " = 1ft.



2-4 Talbot Ave. Attic.
Scale $\frac{1}{8}$ " = 1ft.

construction. They are all built upon the same general plan, but no two are alike so far as outside appearances are concerned.

The photograph shows one of these houses. The one next to it, has a cottage roof. It is shingled, on the sides, and has two down windows instead of one. While the changes thus made, are not very great, and do not materially effect the inside arrangement of the house, the total effect from the outside is entirely different. The photograph also shows the grounds about the house, and the effective arrangement of flower and shrubs.

The details of construction will be shown later, but for the present it is sufficient to say that the best of these houses, has a furnace, is fitted for hot and cold water, has a bath room which contains an enameled iron tub, enameled water closet seat, a porcelain set bowl. All the plumbing is open.

These houses rent at from \$8 to \$12 per month. Those having all the above listed equipment are \$12 dollars. The ones, which do not have furnace, and a finished attic and are not fitted for

~~hot~~ hot water one \$8 per month.
 Skilled laborers getting from \$10 to \$15 dollars
 per week live in them, but some
 are occupied by unskilled laborers where
 there is more than one wage earner
 in the family.

To write a description of the house, when
 there are plans to study, would be super-
 fluous, but one or two things ought to be
 especially noticed.

In the first place the cellar is either
 carefully cemented or well graveled
 with good fit gravel. Also, too the
 cellar is well ventilated and lighted
 containing four windows in each
 tenement.

On the first floor, the hall deserves
 notice for its size. It 11'-4" x 12'-4". On
 account of its size, it may well serve as a
 dining room. Also all the rooms are
 directly connected with the hall. Again
 in connection with the kitchen there is
 a cooking room 5'-0" x 8'-8"

On the second floor there are some good
 features. Each bed room opens from the
 hall, and the bath room opens from the
 hall also. Each room has a good sized
 closet, and there is one general closet of
 good size. The bath room too is large

and roomy. 6'-8" X 11'-6". It is to be remembered that the both room is fitted with tub, seat, and set bowl, all of open plumbing.

On the third floor are three more fairly good sized sleeping rooms.

To sum up, we have here a unit of ten good sized rooms and a both, and a good basement, furnished with hot and cold water, kitchen furnishings such as stove, and its equipment, all for the modest sum of \$12,000 or thereabouts.

A study of the following extracts from the owner's signed copy of specifications for construction will show that the house is not a cheap poorly built shell but a house constructed upon good house principles.

"Foundations."

"Foundations walls to be made of dimensions and levels shown by drawings, of good field stone found upon lots near by laid dry, well bonded, bedded, firmer with long through firmer, and joints filled with stone chips, laid dry to within twelve inches of grade. To be jointed on the inside with 1-3 lime cement mortar. Level off on top to receive underpinning."

"Sides:"

Cover sides of house throughout with best cedar shingles laid 5" to the weather."

"Sheathing"

All shingles to be laid over riven sized sheathing of oak."

"Outside Finish"

Except, as otherwise specified or marked on drawings, all outside finish is to be of best quality Canada fine stock, free from large and loose knots."

"Blinds"

Fit to outside of all windows, except the swell over in the cellar..... one and one fourth inch blinds of No. 1 Michigan Pine."

"Inside Finish"

Except where otherwise specified or marked on floor, the inside finish is to be of clear North Carolina pine, finishing stock to finish natural."

"Upper Floors"

Dining Rooms, Kitchens, pantries and entries of first floor to be of Birch 7-8" by 3" blind nailed, kiln dried, and sanded after laying.

All other floors to be laid with....

ofrue.....

Hard wood floors to be hand scuffed in first class manner, and protected by paper until painter finishes them."

"Kitchen"

"Contractor to furnish and set all hardware for the above painter and kitchen, and same to be approved by owner"

"Dining Room Closets"

"Door in these closets to be glazed with glass."

"Picture Mouldings"

"Picture mouldings furnished and put up by owner."

"Doors"

"All doors are to be of Red Cedar"

"Glazing"

"The sashes for first and second stories are to be glazed with No. 1 Quality Clear Single Thick American glass."

In addition to these specifications it is interesting to note that the corporation rents at a small rental double windows to those who wish them. Also they frame and sell at cost to the tenants screens, doors, and screens for windows.

Each house has ample grounds, and many of the tenants have vegetable gardens. All these facts and minor details go to indicate the healthy, comfortable, and not to say artistic conditions under which these people live. The houses are warm, artistic, and roomy. Each family, for its own front door, its own back door, its own yard, and its own home safe and secluded.

Here is one factor in the solution of the great problem of housing the poor. The country village has many disadvantages, but they fade into insignificance, when one contrasts such conditions as I have described with the horrible, filthy, conditions under which people of the same class live in the large city.

In these days when railroad facilities are becoming so convenient, when the transmission of power by electricity is so simple, is there not here a suggestion which might be of value. Many manufacturing industries might be built up in the country, which would draw people away from the city, and

greatly relieved the congestions.

The Supt. of the Tolbot Mills says, "we aim to get good families, and keep them. Such help pays much better than to get the revolving door of help." He also says "we never have any trouble in getting help, the fact that the plant is in the country does not limit us in this direction." Also, "we get a better class of operatives than the same kind of mills do in a city".

Then from the financial standpoint he says, "The difference in Rent makes up for all other losses which may result from being located in the country" again "Higher wages and country location keep a better grade of workmen"

We have the evidence from the information to the effect that they gain rather than ~~lose~~ by being located in the country.

I think that it would be worth while for people who are interested in the housing problem to try to interest business men in such movements.

After all the great interest in the whole plant, is to know the people and to see the kind of life they live.

The general condition of the people is indicated by the demand for tenements. As I have shown the only four houses come in class I, but these are neat and clean and well built, even if they are not beautiful. The company have great difficulty in keeping these houses filled, even though the rent is so very low. On the other hand there are waiting lists for all the better tenements, and the company is building four to six houses about every year to meet this demand. The Dept. says, "All but the very cheapest tenements are full. It is difficult to fill them, but there is a big waiting list for good tenements."

The condition of the people is shown by their interest in finances. The Dept. says "Fully one half of the operatives keep a bank account." He tells of one family which he has followed with interest. The father of the family has never worked for Solbot Mills, but has done outside work. They came to North Billerica about 20 years ago. Some of the children come to work in the mill. For the first ten years the wages of the family as a whole have amounted to about \$50⁰⁰/₁₀₀ per week. They saved their money, and five or six years ago, the father

bought a farm, rather a large one, and paid for it. Now one of the sons, the wether and daughter stay at home and run the farm. They make living expenses for the whole family in this way. The father and the rest of the children still work outside and save their wages. They must be quite well to do.

I have collected upon, and eaten at the houses of many of the people in this village. At one time I was entertained by music on an upright piano, of good work, by two different children of the family. Of this same family, (they earn their money by working in the mill) one daughter is fitting for college, and one son is at Worcester Academy this year. &c.

In another family one son has earned all the money, done his studying nights and at evening schools, and fitted himself for medical college. He is now in his second year.

There are two boys now in colleges in New England, who come from families who work in these mills. They are acquitting themselves with honor.

One father said to me once, "I never

feel much about at learning, but if my health holds my children shall have a chance." He has two children one boy and a girl. Both play the piano well, both are good scholars, and the boy is about ready for college.

So I might go on naming incidents after incident to show that these influences are trying their effect upon the people. It is interesting to go through the village between seven and eight o'clock in the evening in the late spring, to see the father working upon a little garden, and the children playing upon clean healthy grass.

There is a sharp contrast between the general surroundings here, and in the city.

And yet this has its dark side, there are a few, but very few of the men who drink, they love to go out of town to get their liquor, but still evidence of it creep out. The general moral tone is strong and healthy. It gives one the hope that perhaps the apparent evils of closely congested city life, would be greatly lessened if the people could only be put under better conditions.