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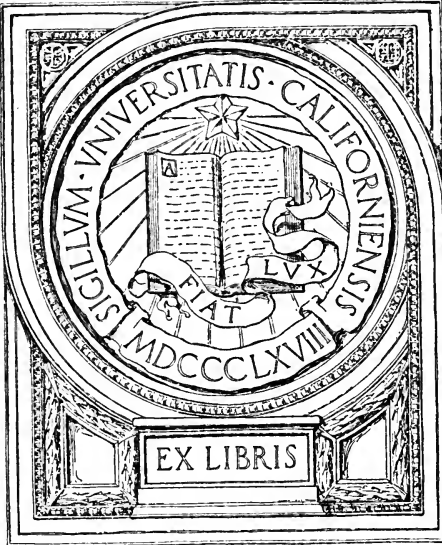
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is Purchasable. Within Natural Limitations Any Community Can Determine Its Own  
Death Rate

# A STUDY OF HOUSING CONDITIONS

MADE FOR THE

NEW YORK STATE DEPARTMENT OF HEALTH

*Investigation of Summer Boarding Houses  
in vicinity of New York City, in Sullivan  
and Ulster counties.*

MADGE HEADLEY

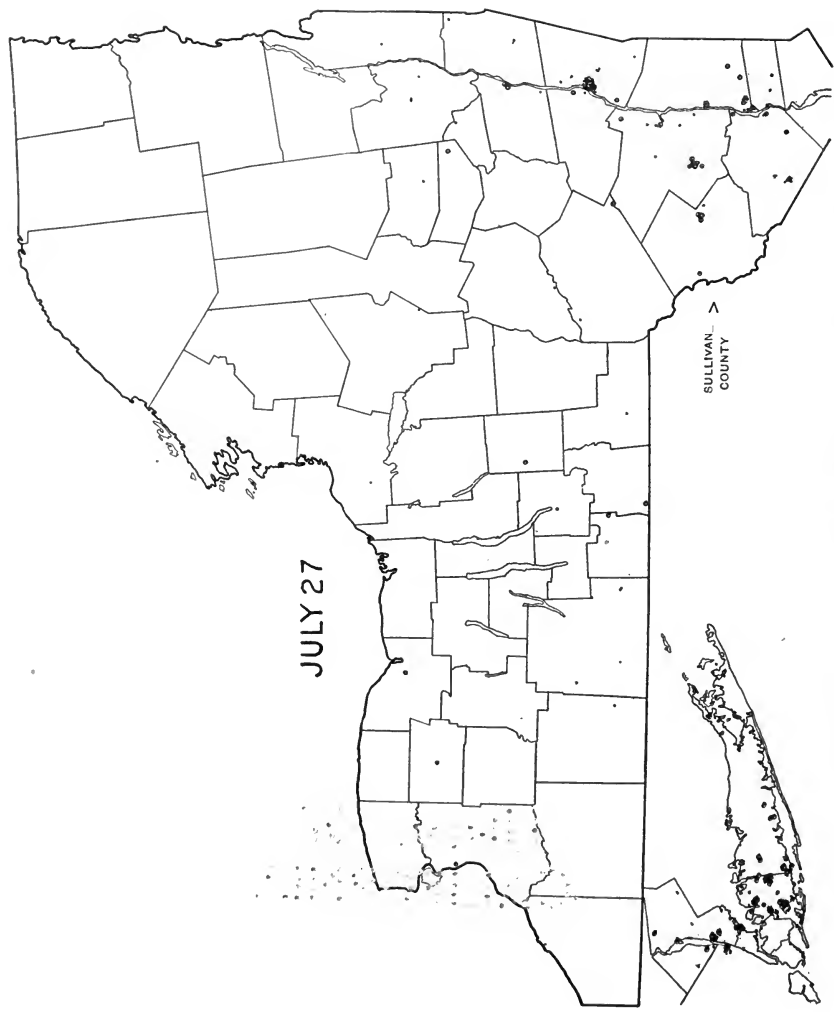
1916



HERMANN M. BIGGS, M.D.  
Commissioner

Issued by the  
Division of Public Health Education

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JULY 27

SULLIVAN  
COUNTY

DISTRIBUTION OF CASES OF POLIOMYELITIS IN NEW YORK STATE, OUTSIDE OF NEW YORK CITY,  
ON THE DATE INDICATED

945

## A STUDY OF HOUSING CONDITIONS MADE FOR THE NEW YORK STATE DEPARTMENT OF HEALTH

The State Department of Health has received so many unfavorable reports on living conditions among summer visitors of the poorer class, coming from New York City to certain nearby districts in the State, that it was thought desirable to have an investigation of the matter made by an expert on housing. The services of Miss Madge Headley, an investigator of housing conditions, therefore, were engaged by the Commissioner of Health for several weeks during the past summer, and an abstract of Miss Headley's report is herewith presented.

It is the hope of the Commissioner of Health that those interested in a problem of vital importance to thousands of people in the City and the State of New York (and which unquestionably exists in the vicinity of other large cities throughout the country), may, by further study of the subject and by mutual cooperation, devise some plan by which the intolerable conditions described may be alleviated. It is desired that this be accomplished without depriving women and children of the inestimable privilege of getting away from a large city during the summer season.

The Commissioner of Health welcomes any suggestion or advice on the subject which may form a basis for the adoption of remedial measures.

### Letter from Dr. Berry, State Sanitary Supervisor

SEPTEMBER 13, 1916

DR. HERMANN M. BIGGS, *Commissioner, New York State Department of Health, Albany, New York*

DEAR DOCTOR.— The condition of many summer boarding houses in New York State in certain districts adjacent to New York City invites the earnest attention of the State health authorities.

Starting modestly with a few additions to the household in each farm house, during the warm months, for the purpose of adding to the family income, it has developed into a phase where flimsy structures are put up expressly for this purpose, and people herded into them, without regard to sanitation, privacy or the ordinary decencies of life. In many places the conditions existing in so called summer resorts, have a distinct influence upon the mortality and morbidity records of the State.

The New York City Health Department has been calling attention in their weekly bulletins, to the fact that the annual vacation looked forward to for rest, change, renewal and upbuilding of health, may from

the conditions found in many places frequented by vacationists result instead in illness or even death.

The problem presented to the sanitarian, consists usually of a small town or village, with a standing population of 500 to 1,000, depending on privies and cesspools for excreta disposal, ground absorption for household waste, and wells and springs for drinking water, suddenly having its inhabitants increase 20 or 25 fold, and amid conditions of overcrowding, bad sanitation and general filth, of having to isolate and quarantine a case of communicable disease in a house where even the halls, front porch and floor of dining-room are utilized for sleeping quarters.

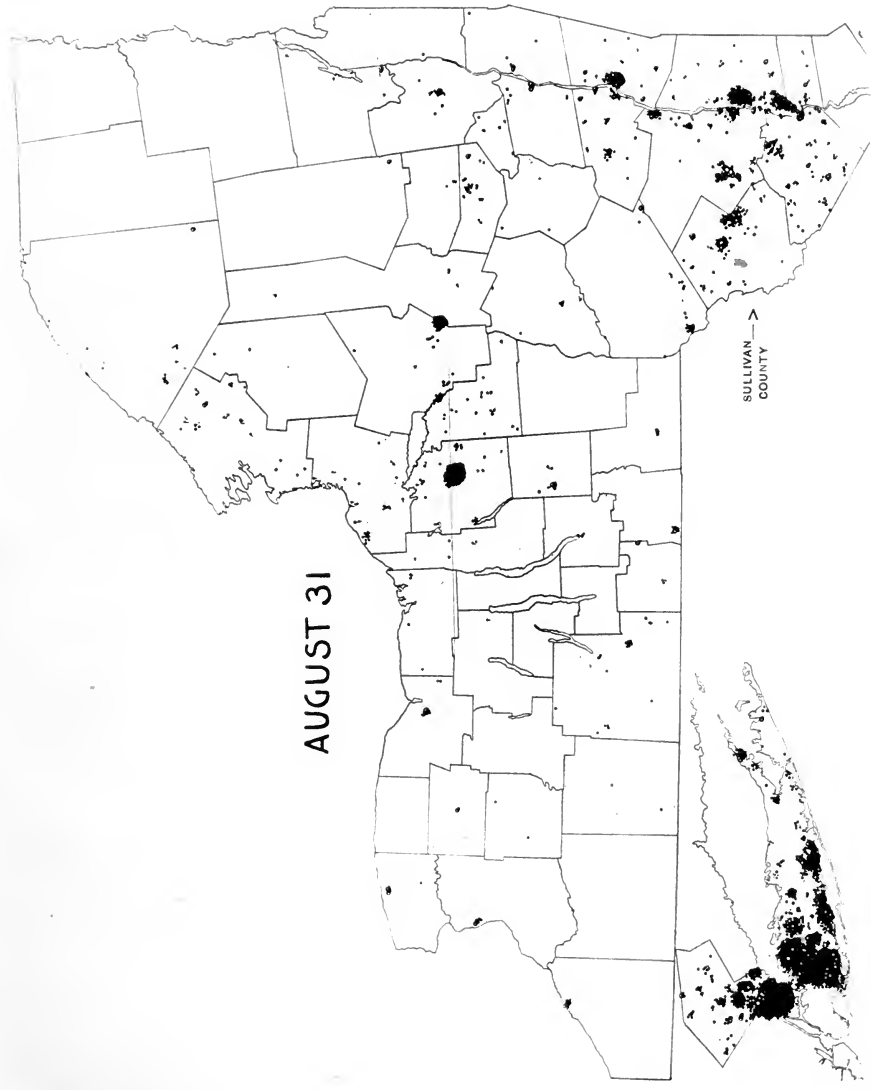
The care of a case of communicable disease in a crowded boarding house, has, for a long time, been a serious proposition for the local health officer and the State officials, removal to a hospital being usually out of the question for the reason that there is none available. The ultimate outcome is one of the following:

- (a) The case is sent home or dies, bedroom is fumigated. Business continues as usual, fresh arrivals taking the place of those who decamped at the first alarm to spread around other places in the district.
- (b) The case is quarantined in a room or outbuilding on the premises, and the owner of the boarding house suffers considerable financial loss from the collapse of his business for that season. Contacts are controlled more or less efficiently.

Attempts to establish isolation hospitals in each district have generally been discouraged by the supervisors, who insist that it is a local problem to be met solely by the town or village interested. Propositions to meet some of the above conditions by a system of hospital tents, to be owned by the State, and loaned to districts as needed, have been considered and rejected on account of lack of funds.

The situation could be considerably clarified by having the Public Health Council establish regulations for the proper control of the summer boarding house, similar to those now in effect for labor camps. Such regulations should embrace the following points:

- 1 Permit required for any place (not covered by hotel act) which accommodates roomers or boarders to the number of ten or more.
- 2 Such permit to be issued on application by the local health officer.
- 3 Permit should state number of guests allowed, with provisions for week-end visits, be valid for a certain stated period, be revocable for cause, and designate some person who is responsible for place.



AUGUST 31

SULLIVAN COUNTY

DISTRIBUTION OF CASES OF POLIOMYELITIS IN NEW YORK STATE, OUTSIDE OF THE CITY OF NEW YORK, ON THE DATE INDICATED

- 4 Before permit is granted, health officer should visit premises and score the place on the following points, a certain score being required. This would allow for the gradual education of the people as in dairy work.

Privies: Cleanliness, accessibility, removal of fecal matter

Cesspools: Construction; location

Kitchens and dining-rooms: Screened against flies

Food: Care and storage

Facilities for dish washing

Open or closed shelves for dishes, etc.

Location and condition of stables

Condition and upkeep of dairy.

Provisions for isolation of communicable disease, either on premises, or by use of some nearby building in conjunction with other boarding houses, each to maintain space according to the number of guests kept. This requirement would eventually lead to establishment of proper isolation hospitals.

Respectfully submitted,

C. W. BERRY, M. D.

*Sanitary Supervisor*

#### Miss Headley's report

During the last week of July and the first four weeks of August, 1916, week by week, from ten to seventeen cases of poliomyelitis were reported to the State Department of Health of New York, from the counties of Sullivan and Ulster. Most of them were returned to Willard Parker Hospital as New York City cases. These figures were so high, as compared with other similar rural sections of the State, that the Department commenced an analysis of what a summer vacation might involve. Reports came in from physicians in charge of the district work, from the nurses, and from the local health officers, telling of excessively insanitary conditions and of room overcrowding. One nurse wrote:

" Rooms are engaged by guests and board paid in advance. The landlord then takes in as many more boarders as apply, or as he can secure on meeting the trains, and assigns them to rooms already occupied, if necessary. Beds are put up in halls, tents, attics, living rooms and stables. The bedrooms are always untidy — slops not emptied, beds unmade, fruit and other food exposed to flies, soiled clothing piled high in a corner of the room, or under the bed. Mothers complain that it is impossible to provide for the baby's bath, or for laundry. The toilets, baths, hoppers and sinks are invariably disgusting to look at from overuse. Water supply for the flush is never adequate. The water supply and sewage disposal are matters that cause immediate concern, on account of overcrowded conditions. The food is prepared at the



back door, chickens plucked, fish cleaned, and refuse thrown upon the ground until the general cleaning up takes place. Flies swarm in yards and kitchens."

From the reports of the members of the staff, it seemed evident that the people who went to the summer resorts of Sullivan county, took their congested city standards with them, and were lowering native standards to their own level. To correlate and verify these reports from the various members of the staff, and to make an intensive study of conditions, Deputy Commissioner of Health Williams sent for a trained housing investigator. He gave instructions for a study and report, not from the medical standpoint, but on the fundamental



NEWER TYPE OF BOARDING HOUSE. WINDOWS ARE NARROW, AND THERE ARE TWO BEDS IN A ROOM. MANY OF THIS TYPE ARE ADVERTISED AS "MODERN" AND HAVE FLUSH TOILETS ON THE SECOND AND THIRD FLOORS, GENERALLY IN A RATIO OF ONE TO TWENTY OR MORE GUESTS AND RARELY CLEAN

requisites of all good housing: light, ventilation, water supply, toilets, room overcrowding, cleanliness, fire hazard.

Because of the limited time, the study was confined to the towns of Fallsburg, Liberty and Thompson in Sullivan county, and the town of Wawarsing in Ulster county, immediately adjoining. While some of the local conditions are distinctive, it is believed that the more serious problems involved can be found in many other parts of New York State, where there are summer resorts, and that the question of control is not purely a local one.

This study deals strictly with small village and farm conditions. The city of Middletown, and the village of Liberty, which practically mark the south and north boundaries of the epidemic of poliomyelitis

in this section, have no large village on the railway line between them, except Centerville Station, with less than one thousand. American rural standards, instead of the congested standards, as reported by the nurses and health officers, might be expected. Cases reported showed that the highest numbers were coming from the congested houses of the towns of Fallsburg, Liberty and Thompson, in Sullivan county, and Wawarsing in Ulster.

CASES OF POLIOMYELITIS IN SULLIVAN AND ULSTER COUNTIES  
(ACCORDING TO WEEKS)

MUNICIPALITY	JUNE				JULY				AUGUST					
	1st	2d	3d	4th	1st	2d	3d	4th	1st	2d	3d	4th	5th	
Sullivan county:														
Town of Callicoon.....					1								1	
Town of Cochecton.....							1				1			
Town of Fallsburgh.....				1		3	5	6	3	2	4	6	1	
Village of Centerville Station.....							1		1					
Town of Forestburg.....										1				
Town of Fremont.....											4			
Town of Highland.....										1				
Town of Liberty.....								5	5	2	5	5	1	
Village of Liberty.....								2						
Town of Mamakating.....									1		2	2		
Town of Rockland.....							1	2		2	1			
Town of Thompson.....								1		1	1			
Village of Monticello.....										1				
Ulster county:														
City of Kingston.....			1		1	1		1						
Town of Esopus.....							2	2	1					
Town of Lloyd.....					1			3	4	10			3	
Town of Marlborough.....					1									
Village of Marlboro.....							1	1					1	
Town of Olive.....							1						1	
Town of Rochester.....						1	1	4				1		
Town of Rosendale.....									1					
Town of Saugerties.....							1	3		1				
Village of Saugerties.....						1		1	1	1				
Town of Shawangunk.....									2	1	1			
Town of Ulster.....								1	2					
Town of Wawarsing.....					1		4	1				2	3	
Village of Ellenville.....								1	2		2			
Town of Marlborough.....														1

### Types of houses

There are four types of resort houses in the district studied: private families who take a few boarders to supplement the family income; houses formerly the homes of private families, to which have been added extensions and additions for a larger number of boarders; large houses built especially for the business of keeping boarders; and "rooming houses."

## Rooming houses

Because the boarding houses prefer adults, and because of the expense of weekly board for a mother and four or five children, a specialized type of "rooming house" is rapidly increasing in numbers. It is the worst type investigated, with more chances for contagion, more insanitary conditions, and more excessive room overcrowding.

Usually the rooming house is an old farm house, in poor repair, with from ten to twelve rooms. Sometimes the larger rooms or portions of the halls, have been partitioned off.



TEN BEDROOMS, ONE FAMILY IN EACH, WITH COMMON KITCHEN AND DINING ROOM; 15 TO 20 ADULTS; 30 TO 40 CHILDREN. WATER SUPPLY, A SPRING WHICH RECEIVES SURFACE DRAINAGE AND WASTE FROM KITCHEN SINK; ONE PRIVY WITH LOOSELY BUILT REMOVAL DRAWER, OVERFLOWING AT TIME OF INSPECTION

With no water supply other than the old well or spring which was barely sufficient, and not always pure, when used only by the original farmer's family; and with no change in the privy except to dig a new vault or to move the shelter and install moveable boxes or tubs, renting is begun to families. Each room in the house brings from \$30 to \$50 for the season, and is usually occupied from July 1 to September 1. The landlord provides beds and mattresses as agreed, or as many as can be fitted into the room, leaving scant free floor space. When all of the rooms have been rented, one each to a family, he pockets the rent, moves his family to a bungalow or to the barn, and assumes no

further responsibility. Cleanliness of rooms, halls, common kitchen and dining-room, is "up to the roomers." As the landlord is generally trying to run the farm, to grow a vegetable garden, take care of his dairy, and raise chickens, all of which he sells at a good profit to his roomers, he and his family are away most of the day. Each family can lay blame on another.



TENEMENT CONDITIONS IN A VILLAGE. BEDDING IN WINDOWS;  
FOOD BOX ON PORCH; GARBAGE THROWN IN YARD; 2 TO 4  
TENANTS PER ROOM

Imagine a hot summer night, with the sixteen families of an East side tenement house, swarming on the front porch and refuse-strewn, sun-baked yard of an old farm house, instead of spilling over the edge of the sidewalk and the pavement of the street, you will know how a "rooming house" in the country looks.

Imagine the whole family, mother and children and father, with adult kin who change from time to time, going to bed in a one-room tenement,

instead of spreading over the limited confines of a four-room flat, you will wonder what will happen when some keen landlord discovers the possibilities of the double-decker bed. Mother and children stay all summer, and father joins them in his short vacation, or when out of work.

If, when daylight comes, you take another peep into the one-room tenement, you will see that in the scant space left by the beds, the food is stored. On a box, or small table, will be uncooked chicken, open dishes of milk, over-ripe fruit, pickled fish, cut bread — all uncovered from dust, but covered with flies. The more bulky supplies are stored under the bed, along with the soiled clothing. On nails driven into doors and walls hangs the family wardrobe, taking scant room, for changes are not considered necessary. In one trunk are brought the family clothing, sheets, pillows and comforters for the beds, dishes for table and cooking, and the baby's bottles.

In most of the rooming houses, there is a common kitchen, with cook stove, sink, and open shelves for dishes and food storage. From a dozen to twenty cook pots and coffee pots are jostled together on every available inch of the stove. The dining-room has scanty furnishing of table and chairs. When a meal is finished, the few dishes of each family are more or less washed in turn, but as no one is responsible for stove, floor, sink or tables, the accumulated grease and scraps of food are left to the flies. The floor is often so slippery with grease as to be dangerous, and a protest from nurse or inspector gains only the answers, "It is my vacation — why should I work?" or "You should have come on a Friday — then we clean."

In a few rooming houses cooking is done on oil stoves in the bedrooms, and the beds used for a table, adding to the confusion and dirt.

Face washing, bathing and laundry are done at the kitchen sink, or at the spring or well in the yard. Sometimes a pool in the brook is used for bathing, but the water is too cold for efficient cleansing. It is possible that a little more dirt does not hurt the older children. The serious feature is the lack of means for properly caring for the baby's bath and diapers. It was interesting to note the careful attention to the rules for modifying milk, learned at the milk stations and carried out with difficulty; but discouraging to see the bottles put in a dirty ice box, with not even a bit of absorbent cotton for a cover.

Perhaps these families are "no worse off" than in the tenement houses of the East side where they live in winter, but in many ways they are no better off. Much of the hard-earned money of the busy season goes to pay for the chance at fresh air for mother and children, paid in advance at the beginning of the season. Some of the more

careful mothers expressed their disgust with conditions, and said they would never come again, but felt that they must stay and not waste the money already paid out.

The theory of the rooming house is not bad. If cross ventilation could be provided for the bedrooms, the overcrowding is not too serious, as the family are out of doors nearly all day. But the scanty water supply, the over-used privy, the general uncleanliness and insanitation, and the dangers of contagion, are real menaces. Housekeeping is hard for the single farmer's family living alone in the house. When the



FLIMSY ADDITIONS, THIN PARTITIONS BETWEEN UPSTAIRS BEDROOMS. ONE WINDOWLESS ROOM ON FIRST FLOOR. EXTENSION IN REAR COMBINED KITCHEN AND DINING ROOM FOR 10 FAMILIES. OUTSIDE STAIRS UNSAFE

same number of rooms, the same water supply, and the one privy must serve ten to seventeen families, the difficulties are multiplied many times.

### Boarding houses

The oldest type of boarding house, that of the private family living in its own house in a village or on a farm, and taking only a few boarders, is rapidly disappearing. The native families of the district investigated, are selling out and moving away. The new owners buy with the idea of making a business of keeping boarders, with the farm incidental, except as it furnishes vegetables, and feed for the horses

and cows. The old farm house soon has an addition of three or more stories, devoted to bedrooms, or a separate building is erected for a kitchen and dining-room, and all of the rooms in the old house turned into bedrooms. From year to year, the owner adds to the number of bedrooms, puts more beds into the larger rooms, and gradually grows. He establishes the standard of two beds and four persons in each room.

In addition to the common practice of allotting four persons to a room, privacy is still further diminished in some of the smaller houses by the need of passing through one bedroom to get to another, due to



FLIMSY CONSTRUCTION OF ADDITIONS; BACK YARD GARBAGE STREWN AND SATURATED WITH SLOPS

poor planning of additions. Also when larger rooms are divided, the partitions are commonly made of thin boards.

In some of the houses, there is no living or sitting room, the only common room being the dining-room. In rainy weather, boarders are confined to their bedrooms, as there is no place to go except at meal times. These conditions are especially prevalent in rooming houses.

Like the newer houses, additions are constructed as cheaply as possible, adding not only to the fire danger, but to the hard work necessary to preserve even moderate cleanliness. Rough floors in the kitchen are saturated with grease, cracks in bedroom walls and floor afford hiding places for vermin, plumbing fixtures are so poorly installed

that they easily get out of order, with a plumber many miles away. The owners do not increase their washing and bathing facilities in ratio with increased number of boarders, or install a sufficient number of flush toilets. As a rule, he does pipe water from a spring into the house, and if necessary install a pump and a storage tank. Occasionally a well is supplementary, but not the only source. While the water supply is a little more convenient of access, it is still apt to be inadequate in quantity.

The third type of boarding house is a natural outgrowth of the rapid increase of the business in the past ten years. It is the large house,



TENTS FOR ACCOMMODATIONS FOR ADDITIONAL BOARDERS; NO INCREASE IN TOILET OR WASHING FACILITIES TO COMPENSATE FOR INCREASED NUMBERS

accommodating from 80 to 125 boarders, specially built for the purpose. The trade-mark is the attic story with the dormer windows. As this is the type which is being constructed in larger numbers each season, a study should be made for future control, including the fire danger; accommodations for face washing, and for bathing; the ratio of toilets, and provision for separation of sexes; water supply; disposal of wastes from toilets, from the kitchens and from the stables.

As the buildings are intended only for warm weather use, a certain lightness of construction is probably permissible. There has, so far as could be ascertained, been no loss of life from fire. But a number of the buildings have burned quickly and completely, indicating the



danger if a fire should start in the night during the season. Usually the stairs are not continuous, there are no fire-escapes, and except in the very best houses, no fire extinguishers. The house is gone before a telephone message brings the nearest fire engine.

### Light and ventilation

The standard bedroom for these newer houses is about ten by twelve, accommodating two beds and a dresser, with four persons to a room.

Disregarding the question of privacy with four persons to a room, the question of ventilation is the important one. Rooms in the corners



DISTANCE OF TENTS FROM HOUSE; NO WASHING OR TOILET FACILITIES PROVIDED; ALL BOARDERS USE TOILET IN SECOND STORY OF EXTENSION; BATHROOM BELOW

get cross ventilation, but they are few in number. Other rooms have only one window, usually large, and ample as to light. But as it is not usual to provide transoms, ventilating flues, or any means of making a current of air, the ventilation at very best, with a good breeze blowing, is hardly adequate for four persons with about a thousand cubic feet of air to share. When the air is still, or when rainy weather compels closed windows, or when one of the four is afraid of drafts, the ventilation becomes very bad. Because there is plenty of fresh air outside it does not mean that it gets inside, and part of the purpose of the summer vacation is defeated by sleeping in the poorly ventilated and over-

crowded room. Nor is this a matter which the boarder can improve, except by leaving the bedroom door open, making an additional lack in already scant privacy.

### Toilets

For these newer houses, the toilets are built in when the house is constructed, and are less liable to get out of order. Two or four are provided, usually two, supplemented by privies. In the boarding houses of this type inspected, the ratio ran from one toilet to twenty persons, to one for forty-five. In only two cases were the toilets for men and women adequately separated by being placed on different floors. In a number of houses, compartments side by side were marked "Gents" and "Ladies," but the signs were not observed.

### Washing facilities

In some of the houses, one basin and pitcher were provided for the four occupants of a bedroom. In general practice twenty to thirty men and women washed together at the common sink, basin, or hopper, provided in the halls.

In newly built houses, and in some of the older ones, a bath tub has been installed. It is the custom to charge 25 cents for a bath, disproportionately high for board of \$9.00 to \$12.00 per week. From lack of privacy, and the size of the basin, a sponge bath in the bedroom can be taken only with great difficulty. While there is ample natural water supply in the district, the brooks, ponds and springs are small and cold, and do not tempt to open air bathing.

Frequently the scanty sanitary provisions for a house full of boarders are put under additional pressure by the occupants of tents or bungalows, for whom no separate provision is made.

In part these omissions are due to lack of education in sanitation; in part to limited funds for building which make every economy imperative; and occasionally to low standards, or to indifference. For the one class education is necessary; for another, definite standards which must be observed in spite of desire to economize; and for the last, compulsion.

### Housekeeping

In all of these kinds of resorts, the rooming house, the built-over farm boarding house, and the newly built large houses, with rare exceptions, the housekeeping is bad. The occasional landlord has good intentions, and makes an effort. But because of overcrowding, of lack of conveniences, of the difficulties of cleanliness and of garbage disposal where so much food is prepared, even the best fail to cope fully with their

problem. Help is difficult to get, the family is overworked until it becomes careless, the boarders are not overexacting. Conditions are worst in the poorest houses, where the lower rates are paid.

During the inspection only one landlady, a former trained nurse, was found who had the courage and good sense to ask careless boarders who would not observe her rules, to move. At the present expense of her pocketbook, but shrewdly looking to the future, she insisted on cleanliness.

The difficulties of enforcing standards of sanitation in housekeeping are much more intricate and trying than those of compelling or persuading landlords to construct their houses with regard for safety, to furnish an unpolluted water supply, or to provide sufficient toilets. Yet the chances of contagion through dirty food, dishes, dust, and vermin are many, and standards must be maintained. We have been slow to invade the right of a woman to be a poor housekeeper, but since one dirty kitchen, or one insanitary house can affect the whole community, we must find the way to make her do her share in maintaining health standards.

The house inspections, and the orders given by the nurses during the poliomyelitis epidemic, were effective, and point the way to one solution. A nurse assigned to each health officer during the boarding season, could materially improve the housekeeping.\*

### Community problems

The rapid increase of population in this district, without proper restrictions, has resulted in lower standards of living, and has adversely affected the whole community. It has "just grown." The consequent insanitary conditions and room overcrowding can be remedied, and controlled by prompt, forceful, and regular inspection and enforcement of regulations. The experience gained will furnish a basis for like enforcement and control in other similar regions.

The more important problem is the control of future development. The infantile paralysis epidemic has served to rouse some communities to needed reforms, which with the slower process of education would take many years. While there are a few citizens in the inspection district fully alive to the need of changes, there is no general community interest in the needed reforms of control of construction, protection of water supply against pollution, the installation of sufficient toilets, and the disposal of sewage and other wastes.

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\* The nurses employed during the epidemic were supplied by the State, and one nurse had to supervise several health districts.

### Construction and fire danger

In addition to the insanitary conditions arising from flimsy construction, there is the question of fire danger. Two people out of three will say, "But there never has been any loss of life" or more cynically, "These houses only burn up after a bad season." There will be a first time.

There are hundreds of flimsy frame houses, with third and fourth stories in which the sleepers would be trapped by fire, or smothered by smoke as they grope bewildered for the narrow stairs. Often the stairs



MAIN BUILDING: ON THE GROUNDS ARE ALSO A COTTAGE OF 16 ROOMS, THE HOME OF OWNER, AND 5 ROOMS OVER THE BARN, MAKING 39 BEDROOMS AND FROM 60 TO 75 BEDS. DURING SEASON THERE ARE FROM 95 TO 125 BOARDERS

do not have continuous flights from the top story to the ground. They have been made to fit the additions to the house, are often steep, occasionally without banisters. The halls are narrow, and not lighted by windows, or artificial lights.

### Water supply and pollution

The hill counties are well supplied with springs and streams. There is no general scarcity of easily available water supply. The problem is the prevention of pollution: by individuals through ignorance or indolence. At present, pollution at the various boarding houses is so general,

and the danger so little appreciated, that a pure water supply is perhaps the most pressing problem. Closely allied is the problem of cesspools and methods of disposal of fecal matter from privies.

In general the water supply for all types of houses comes from springs. A few houses have wells, dug or driven; a few pump from a brook or river. If the spring is not enough higher than the house to insure a flow, a pump and tank is installed. The water is piped to the kitchen sink, to flush toilets, and usually to a common sink on each floor of the larger boarding houses.



SPRING FOR COOKING AND DRINKING WATER; TWO SOURCES OF POLLUTION:

- 1 SURFACE WATER FROM YARD AND ADJOINING DRIVEWAY
- 2 DRAIN CARRYING WASTE WATER FROM LAUNDRY. TROUGH (AT LEFT OF FENCE) WAS BUILT TO CARRY OFF THIS WASTE. SMALL PART OF WATER GOES THROUGH TROUGH; REST FLOWS INTO HOLLOW OF SPRING

Unless the tank is kept full by almost constant pumping, or if there is a breakage of pipes or pump, a water famine ensues. At times the spring gets too low to insure a clean supply, as the reservoir is usually a small pool, and provision is not made by constructing a storage reservoir. In only three of the houses inspected was a cement reservoir found.

In a few cases of leased houses, the owner lived in another house nearby, and controlled the spring and pump. One woman lessee complained bitterly when the health officer found her flush toilets full to the brim, saying that the owner would not pump. The owner claimed that

he was perfectly willing to pump, but that the lessee would not furnish gasoline as agreed. Face to face accusations developed the fact that the lessee had not paid her milk bill, and that the owner refused to pump until she did.

In another leased house, the spring was small, the pump old and worn, the elevation up the hill and to the tank considerable, the boarders numerous, the pipes and plumbing worn by overuse to constant breakage, the flush toilets filthy. The lease called for the pumping of water, but did not say how much, and the health officer had to take a hand.

It would seem possible to work out a ratio between number of boarders, number of toilets, capacity of tank, and number of times daily which it must be filled.

When there is no tank, and the water supply is pumped by hand from a well, brought in barrels from a spring in the adjoining field, or carried in buckets from a spring in the yard, the provision for an adequate supply is still more difficult.

Besides the kitchen sink (except in the rooming house), water is usually piped to one sink on each bedroom floor. One sink is considered adequate for from 20 to 40 roomers in the main house, and the overflow of boarders in tents, bungalows and extra beds. In a few houses, bedrooms were supplied with one basin and pitcher for the four occupants. In no house inspected was there a really adequate supply readily accessible.

### Pollution

More serious from a health standpoint than the quantity and accessibility of the water supply, is its possible pollution. As the common practice is to take water from a spring, there are even a larger number of ways for the water to become polluted than when taken from a well. Unless a reservoir is carefully built, and covered with a good shelter, surface water can drain in, carrying various kinds of contaminating matter with it.

An extreme instance is shown in the picture of a boarding house, its barns and outhouses on a hillside considerably higher than the spring from which it pumps its water. During the season, there are about one hundred boarders, for whom with the family and help, four flush toilets and two privies are provided. The house yard is not kept clean: there is a large amount of garbage and waste from the cleaning of chickens which is not given careful disposal; and the two privy vaults at time of inspection were overflowing. The cow and horse barn is across the road, in the same field with the spring. There is fair care of

manure, but the ground near the barn is springy, and there is considerable muck by the doors. In the loft of the barn are five bedrooms without toilets.

The waste from the flush toilets, the kitchen sink, and the bath tub, is carried in a drain under the road and down past the barn to an open ditch. Originally this ditch ran to the foot of the hill in a straight line, somewhat lessening the possibility of contamination of the spring. But at the time of inspection, the ditch was stopped up about half way down the hillside, a pool of sewage had formed, and the stream



RELATION OF HOUSE WITH GARBAGE STREWN YARD AND DIRTY PRIVIES; AND OF THE BARN WITH FIVE HORSES AND TEN COWS, TO SPRING, WHICH IS THE WATER SUPPLY FOR 95 TO 125 BOARDERS, FAMILY AND HELP

was deflected through a depression in the hillside at right angles to the drain until it again ran down hill almost in a direct line to the spring at the foot of the hill.

The spring flows to an open pool, walled up with loose stones, but with no protection from surface water, or from animals. Wash tubs which are used both for clothes and for bathing, according to the statement of the owner, are kept and used at the spring.

This case combines most of the methods of pollution, except that sometimes overflow from a cesspool replaces the open drain. Only one spring was inspected which seemed to be free from sources of pollution.



SHELTER OVER SPRING AT FOOT OF HILL. BOARDS OF SHELTER ROTTED AT BOTTOM. GROUND AROUND SPRING, DEEP MUCK. SPRING ONLY WATER SUPPLY FOR 10 FAMILIES IN HOUSE. RECEIVES SURFACE DRAINAGE FROM YARD, TWO PRIVIES AND KITCHEN SINK



SPRING HOUSE ON RIGHT, ONE STORY EXPENSION WITH TWO BEDROOMS ON LEFT



It is judged that the lack of protection is due to ignorance, and that education which includes practical advice for each particular house is the remedy needed. Conditions vary so widely, and the sources of pollution must be so carefully considered, that no general rules or instructions can be made to apply.

The use of water from rivers and brooks should be forbidden unless a proper filtration plant is installed. In one house inspected, the supply is pumped from a river which is highly polluted. The owner claimed that this water is used only for cleaning purposes, and for the flush toilets, and that drinking and cooking water is carried from a spring in the yard. He was not willing to estimate the number of pails necessary for 80 to 90 boarders. But even if the water from the convenient faucet is used strictly for cleaning, and never for drinking, it is highly probable that the spring is polluted by drainage from the yard, driveway and laundry.

In another case, an owner had set his privies across the head of a stream. A short distance below, a group of houses had dammed the stream, making a reservoir from which they took their water supply. Only on orders from the health officer was the privy removed.

The same health officer had an owner brought before the Justice of the Peace and fined, because when ordered to clean his vaults, he took the fecal matter and dumped it into a running stream.

### Toilets and cesspools

While water pollution is the most serious general problem, there is another health question equally serious to the individual. Constipation is rarely regarded by the layman as a disease, but physicians know how thoroughly the body is poisoned when it is disregarded. Especially for women and young girls, toilets should be private, accessible at all times of day and night, and free from nauseating odors.

It is possible for a private family to care for a privy, and by means of a removal box, to keep it entirely sanitary. It is, of course, rarely adequately accessible or private.

When a privy is used by thirty or forty persons of both sexes, every requisite is violated. Even with removal boxes frequently emptied, it is impossible to thoroughly clean it.

Of twenty-one houses inspected, where there was no indoor toilet, one privy was used by both sexes in the following numbers: under 20 persons, three; 20 to 29, five; 30 to 39, six; over 40, seven. As most of these privies had a vault, and as in only one house was any disinfectant used, the filth and odor towards the end of the season were



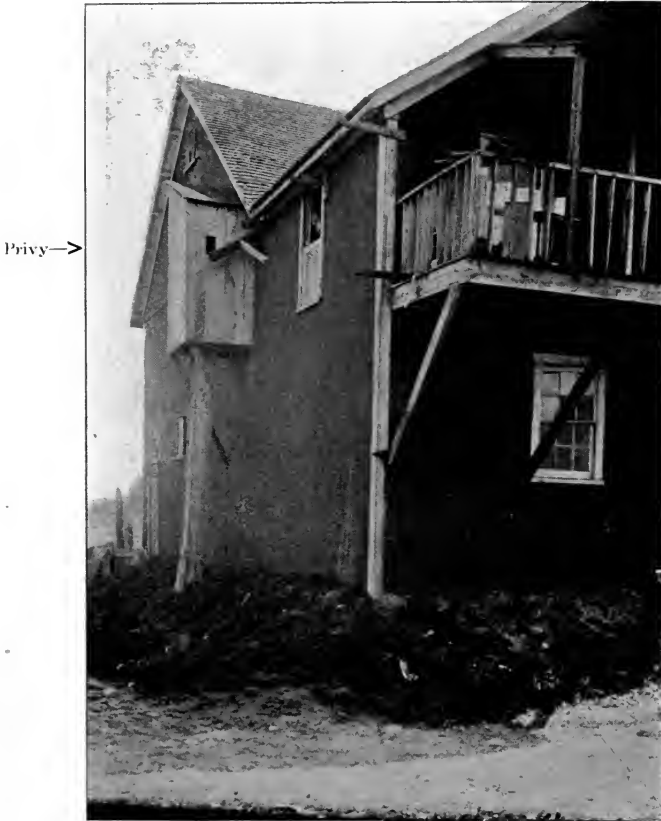
UNUSUAL EQUIPMENT OF PRIVIES. GENERALLY ONLY ONE. SHELTERS RICKETY, FLOORS ROTTEN, SEATS FILTHY



PRIVY SET ON TOP OF GROUND. NO REMOVAL BOX OR PAILS. FECAL MATTER OVERFLOWING ON GROUND OUTSIDE. SATURATION FOR FOUR FEET. USED BY AT LEAST 24 PERSONS ALL SEASON

nauseating. Added to this was the lack of privacy in the day time, and inaccessibility at night.

Conditions at some houses, were made still worse by the emptying of vessels with night soil either on the ground nearby, or carelessly into



FOUR BEDROOMS WITH THIN WALLS, AND ACCESS THROUGH, HAVE BEEN PARTITIONED OFF IN LOFT OF BARN FOR USE OF FAMILY AND HELP. PRIVY WITH SHAFT ENDING AT GROUND (NO VAULT) CONSTRUCTED ON SIDE OF BARN. ENTRANCE THROUGH BEDROOM

the vaults. The yards of several houses furnished unmistakable evidence that children and more careless adults used any convenient place outside of the privy.

Two houses were inspected with outdoor flush toilets, which were satisfactory, except as to privacy.

### Indoor flush toilets

Board in houses which can advertise "modern conveniences" is one or two dollars higher. As this extra soon pays for the installation of plumbing, there is a tendency throughout the region, except in the rooming houses, to put in indoor flush toilets. However, usually one or



FLIMSY CONSTRUCTION OF COMPARTMENTS, AND POOR INSTALLATION OF PLUMBING. TOILET SEAT BROKEN OFF (SECOND TOILET AT LEFT). DWARF DOORS, INADEQUATE PRIVACY, AS TWO TOILETS ARE USED BY BOTH SEXES (SEE NEXT PICTURE FOR OUTSIDE CONSTRUCTION)

two are considered sufficient, installed together in one room, with two compartments. They are not adequate for the number of persons using, or in separation of sexes. Privies are retained for supplementary use, or for convenience when there is a breakage in the plumbing, with the inevitable delay in getting a plumber to make repairs. As many of

these toilets are cheaply installed in a makeshift way, breakage is frequent.

Toilets are drained to inadequate cesspools. A hole from eight to ten feet square, and two to three feet deep is dug, the loose earth or some loosely piled stones adding to the depth. Boards are put across the top, and more earth loosely piled on them. There is constant seepage



WATER CLOSET IN EXTENSION (TWO COMPARTMENTS) SUPPORTED BY POLE. NOTE ALSO CHIMNEY SUPPORTED ON BRACKET

or overflow, as not only the toilets, but usually the kitchen sinks and dish tubs are drained to the cesspool, making a large quantity of water. These cesspools are rarely cleaned, but a new one is sometimes dug to take part of the overflow. At a few houses inspected, the sewage was found draining through a short length of tile to the open field, or to a ditch. No judgment as to possible water pollution is shown in locating the cesspool.

As an adequate cesspool can be constructed with small cost for materials and the labor done by the owner, it is probable that careful instructions as to exact sizes, location, and most suitable method of construction would bring about great improvement.

### Kitchens and back yards

Only in some of the more recently built large boarding houses did inspection show kitchens which were properly fitted up. Good business



SEWAGE DISPOSAL FOR LARGE BOARDING HOUSE. TILE COMES THROUGH TWO WALLS WITH ROAD BETWEEN AND IS CARRIED ON TOP OF GROUND TO SHALLOW HOLE IN A SWAMPY SPOT. SEWAGE LEAKS THROUGH AND SPREADS OVER FIELD ABOUT 50 FEET FROM HOUSE

practice indicates the value of specially adapted ranges, tables, dish-washing appliances, closed cupboards, and a floor which can be scrubbed.

The average rooming house and smaller boarding house kitchen is without any of these things. As business grows, another cook stove is added; more open shelves are put up for dishes and supplies. Food preparation is done by the kitchen door, and the refuse thrown on the ground until the general clearing up after dinner. There is only a small tank for hot water, and before the dinner dishes are all washed, the water is semi-solid with the food left on them when they are dumped



KITCHEN AND DINING ROOMS IN ONE-STORY EXTENSION WITH SEVERAL ADDITIONS. LAUNDRY AND PART OF PREPARATION OF VEGETABLES, DRESSING OF CHICKENS DONE UNDER SHED. NOTE LARGE BAKE OVEN SUPPORTED ON POSTS



KITCHEN EXTENSION AND DISHWASHING SHED. FOOD PREPARATION AND HOUSE LAUNDRY DONE IN COURT. GROUND COVERED WITH SLOPS THROWN FROM KITCHEN DOOR

in. Only a rare housewife scalds the dishes. They are semiwiped or set up to drain, and put away on the open shelves.

"Cleaning up" is done by brushing the refuse from stove and table to the floor, sweeping the piles out into the yard, and perhaps throwing down a little cold water on the rough board floor to be also swept into the yard. The floor soon becomes saturated with grease, and the yard with slops. Flies swarm.

### Disposal of wastes

To dispose of quantities of garbage, ashes and rubbish is always a difficult problem, even in a city where there are regular collections, and



SIDE YARD DIRTY AND UNKEMPT. TWO PRIVIES AT LEFT OF PICTURE, VAULTS FULL, SUPPORTS ROTTED, YARD SLOPES TOWARD SPRING WHICH IS WATER SUPPLY OF HOUSE

the individual is relieved of a large part of responsibility. The larger boarding houses are equivalent to a twenty-family tenement house, and wastes are as large.

Two methods are open to the rural landlord for disposing of all but the small proportion which is fed to chickens or pigs. He can bury, or burn. Either method, if carefully done, takes a good deal of time out of a busy day, and it is easy instead of destroying wastes daily, to allow them to collect until a large quantity is ready for disposal. This is labor saving, but insanitary. On a farm, flies are apt to be too plentiful, even with extreme care. Where there are breeding places in garbage,



stable manure, cesspools and privies, the increase is appalling. When a large part of the kitchen waste is animal matter, from the daily killing and plucking of chickens, it becomes still more objectionable.

Inspection cannot be frequent enough to entirely control the disposal of wastes, but it will indicate the landlords who need careful supervision, or education. A few fines for nuisances might have a deterrent effect.

### Other problems involved

Incidental to the housing and health problems of this rural region of rapidly increasing summer population, is the needed control of stores, of milk supply, of the slaughtering of animals and chickens, of bakeries, of creameries, and ice cream parlors.

Inspections made by the nurses showed the same inattention to sanitary conditions. There is the same need of supervision, and enforcement of regulations for cleanliness, and prevention of sale of impure or spoiled foods.

An extreme instance which happened this summer was that of the killing of an animal with a tumor in its side, which did not come off with the skin, and make the meat kosher. The rabbi cut out the affected part, sold the meat to a Gentile butcher, who in turn retailed it to his customers. The health officer learned of the transaction, brought the Gentile butcher before the Justice, and had him fined.

With a summer population which overtaxes all the resources of the district, and which does not provide its own supplies of meat or vegetables, supervision is especially necessary.

Milk which is sold at retail is protected by many regulations. Milk which is produced in a private dairy, and used on the premises has no inspection and no regulation, because it is not technically sold at retail, though actually it is sold to the boarders as part of their board. Milk which is sold to creameries, and made up into butter or cheese, also is not subject to supervision, except as sold from dairy farms on which certain communicable diseases exist, although many of the dangers of infection are still present.

In the Jewish boarding houses of this district, it is customary to give a "dairy meal" morning and night. Milking is done twice a day, and the milk is used warm, which saves cooling and storage. Better care in handling, and in cleansing of the utensils used, was clearly indicated in the inspections made.

It was notable that most of the city mothers had been carefully instructed in the preparation of milk for the bottle babies, and carried out their instructions, even under great difficulties. But they had not

even rudimentary knowledge of the need for cleanliness in the dairy, or in handling of the milk. Nor did they seem well informed as to the possibility of contamination when the day's supply of bottles had been prepared and put in the ice box.

### The children

While insanitation, water pollution, poor sewage disposal, lack of cleanliness in kitchens, face washing and body bathing done under difficulties or not at all, and room overcrowding, bear dangers for adults, they are especially serious for young children and babies.

A baby should have its daily bath, its quiet nap, well laundered clothing and diapers. Teachers of fresh air classes note that quite as much improvement comes to young children from their quiet rest hour, as from feeding or out of door life. While we are educating our people from the congested city districts to spend part of their hard earned wages in healthful summer vacations, we must see that they do not think that the standards of congestion are right for the open fields, and that health is to be gained simply by going where there is plenty of fresh air.

### Tuberculosis

Incidental to the housing study, note was made of a condition which merits special investigation and consideration.

The original purpose for which a number of families moved to this district was to find good conditions for members with tuberculosis. Some of these families are now making a business of taking boarders or roomers. Complicated with overcrowding, with the common use of dishes, drinking cups at wells and springs, and the difficulty of control of active cases, it would seem probable that regulations are necessary.

The problem is specially acute in the boarding houses in the village of Liberty. Some streets have become almost entirely devoted to tubercular patients. The health officer of the village has carried on a lively campaign of education, and of enforcement of sanitary conditions, but his powers are limited. Some private houses have wall paper which is seldom changed; a common toilet, bathroom, and wash basin for all sorts of cases; seldom is there adequate care in dish washing or in common use of utensils. Two to four patients sleep in the same room.

The law providing for the establishment of sanatoria has proved too stringent, and these uncontrolled boarding houses are the result.

### Summer vacations

There are still in Sullivan and Ulster counties, thousands of open acres, and hundreds of hills, which are admirably adapted for a sum-

mer playground, although the increase in the resorts of the region during the past ten years has been astonishing. These resorts have grown with no State or local building or sanitary regulations to control construction or sanitation. Each landlord suits his own convenience and pocketbook.

Cities are paying large health bills each year, because of conditions imposed upon them by similar lack of control many years ago. Public health is purchasable, but it is hard to pay for bad conditions which might have been prevented. It is time now to establish standards for summer resorts, and to abolish insanitary conditions, since no community of the State can divorce its health from that of other communities.

There are many trite phrases which bring to mind general pictures. When facts are examined, we are surprised at the things taken for granted which are not there. "A summer vacation in the country" brings a picture of fresh air, quiet, rest, recreation, healthful building up of body and mind. We expect some discomforts, and count them part of the experience. When we analyze, and these discomforts turn out to be not minor annoyances, but real dangers, the question to be answered is "How much better are we for a vacation?" and "What is our summer vacation movement really doing?"

The various conditions herewith described would seem to justify an active interest in the subject by the health officials of New York City and the State of New York as well as the local health officials in the districts involved.

#### A WORD OF APPRECIATION

The study was especially interesting because of the new problems involved. The information was gathered by the housing investigator in a comparatively short time, through the unfailing helpfulness of all from whom the facts were obtained. Inspections were allowed without protest, if sometimes without enthusiasm.

To Dr. Berry and Dr. Clark, in charge of the epidemic work of the district, constant reference was made for verification and for criticism of findings. The health officers of the towns inspected, Dr. Laidlaw, Dr. Cauthers, Dr. Payne and Dr. Rapp, also Dr. Payne of the village of Liberty, were always ready with time taken from a busy day for advice and information. The reports on housing conditions made by the nurses, Mrs. Carter, Miss Norvell and Miss Hurley supplemented and verified the inspections made. From Mrs. Laidlaw, a native of the district, reliable and definite information was gained. Cooperation was never asked without immediate and courteous response, and to it the value of the report is due.

MADGE HEADLEY





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